Public Hospital Cost Management and Performance Evaluation from the Perspective of DRGs

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Abstract. In the new round of medical and health system reform, the cost management of DRGs hospital is taken as the entry point, and the medical reform literature and policy documents are compiled. The DRGs are used as a means of payment and evaluation, which is applied to the hospital's cost management and performance evaluation. Analysis DRGs cost accounting is the focus of implementing DRGs payment methods. It is related to the smooth promotion of DRGs payment methods in public hospitals. It will force public hospitals to put more energy into controlling medical costs, and provide scientific and accurate basis for hospital decision-making.

Introduction

The reform of public hospitals in China has entered a deep-water zone. How to better utilize the public welfare nature of public hospitals, reduce the cost of medical care through an effective “paying baton”; how to formulate salary distribution for medical staff with more work and more rewards. The system is an urgent problem to be solved by medical reform. In recent years, the gradual implementation of medical insurance payment methods such as DRGs (Disease Diagnosis Group) has slowed the growth of national medical insurance expenditures and controlled the management risks of medical insurance institutions. However, the responsibility for the management and control of medical expenses in public hospitals has increased. Advanced hospital cost management and performance evaluation are the only way to effectively control medical expenses and reduce financial risks and management pressure in public hospitals.

New Business Model and New Power in the Medical and Health Industry

New Mechanism for Operation and Management of Public Hospitals

The hospital has expanded from scale expansion to quality and efficiency. The policy norms and system construction at the top level design level have replaced the original hospital management small workshops. The medical reform policy has boosted the price reform of medical services, and the separation of medicines has been basically completed. The new medical policies such as grading pricing, independent pricing, and medical equipment sunshine procurement have been introduced one after another, escorting the benign operation of public hospitals.

The Medical Management Department Has Comprehensively Changed the Way Medical Payment is Changed

With the full coverage of medical insurance, the medical management department requires hospitals to gradually reduce the way of project payment, and implement a composite payment method such as pay-for-process and total prepayment, strengthen the total control of medical insurance payment, and solve the problem of excessive financial expenditure. Encourage the implementation of a new path for DRGs costs, establish a medical insurance payment reward and punishment mechanism that is distributed to hospitals and overspending, and encourage hospitals to
accurately control medical costs, rationally allocate medical resources, and strengthen orderly competition among hospitals.

Reformulate the Performance and Compensation System of Medical Staff

The training of medical talents has its particularity. The long-term study expenses, high occupational risks, and social responsibility are common. The doctors should obtain performance and salary in line with professional status. The salary system should reflect the level of technical difficulty of the doctor, the size of the risk, the development of new medical technology and the clinical use effect. Performance cannot be linked to business income such as medicines, consumables, medical examinations, etc., to eliminate the income-generating indicators and to maintain the fairness and independence of the medical profession.

The Urgency of DRGs in China

In the compensation mechanism of public hospitals, the drug addiction income has been basically eliminated, and there are two channels of service fees and government subsidies. These two channels cannot meet the survival and development of the hospital. The hospital needs more accurate expenditure accounting methods. Get good operational results. The most important consideration for the medical management department is the DRGs cost management model, which is located in China's local public hospitals, providing patients with high-quality, high-efficiency medical services under controlled costs.

Advantages of DRGs Payment Method

DRGs can properly control the cost of disease diagnosis and treatment, analyze the diagnosis and treatment process and effects, and medical expenses. It is the most efficient prepaid medical insurance payment method in the world. The price of DRGs is the standard for paying medical expected expenses. Before the hospital gives medical services to patients, it knows the upper limit of the cost of medical insurance in the medical treatment. It is the core content of future hospital management to control the expenses within the DRGs payment standard. DRGs economically encourage hospitals to rationally use medical resources, reduce operating costs, seek the most reasonable clinical path, and actively avoid large prescriptions and unnecessary expensive inspections.

Firstly, Regulate the Doctor's Diagnosis and Treatment Behavior, Improve the Self-discipline of Medical Personnel. The implementation of DRGs allows each physician to compare on the same platform. Based on the same disease group, the same difficulty factor, the difference in treatment time and cost consumption reflects the pros and cons of doctors, forcing doctors to standardize on medical procedures. The medical service details are more standardized[1], requiring doctors to focus on doing good service rather than blindly creating demand. The over-medical treatment of patients will be the outcome of four losses (hospitals, doctors, medical insurance funds, patients).

Secondly, CMI Indicators of DGRs Can be Fairly Compared and Evaluated between Departments and Hospitals. How to judge which departments of a hospital have strong ability in diagnosis and treatment. In the past, most of them evaluated the number of patients admitted to hospitals and departments. The number of patients is the only indicator for assessing performance. Now according to the CMI index of DGRs (AS relative weight, the average resource consumption of each group of DRGs is relative to the average resource consumption of all DRGs cases), the disease and surgery are graded, by comparing the different levels of treatment and medical service capacity, Technical indicators such as technical difficulty and safety can be used to evaluate the technical capabilities of the department. The more patients with high CMI values, the stronger the clinical ability. By comparing the CMI value of a hospital with the CMI value of the target hospital, you can find the inadequacies. DRGs and CMI provide hospitals with cost and technical standards for medical production processes, and have a significant role in setting health services prices for governments, insurance agencies, and hospitals.
Thirdly, DRGs Can Be Used for Cost and Quality Related Control. The DRGs group is applied to cost-benefit analysis, which can reflect the differences in treatment options in terms of quality, efficiency and resource consumption based on horizontal and vertical comparisons, and create new methods for evaluating health services. According to the hospitalization time and medical resource consumption of the patients admitted to the department, the operation and control ability of the department is judged. For example, a provincial public hospital has adopted a series of measures such as management model innovation, workflow optimization, and cost control management, which has reduced the average hospitalization day of hospitals from 13.7 days five years ago to 8.7 days now, greatly reducing medical costs. It solves the problem of patients being difficult to enter the hospital. Of course, we also need to pay attention to the problem of the other side: whether the average hospitalization day shortens at the expense of medical technology. At present, the examination of doctors mainly depends on how many articles have been sent, how many national subjects have been applied, how many major operations have been performed, and there are few indicators of quality assessment such as technical level and patient return rate in performance appraisal. It is considered that quality evaluation is auxiliary. The actual quality is the most important. A life is related to the peace and stability of a family and a region. If the doctor's level or irresponsibility leads to an accident, it will cause public anger. Focusing on the difficulty and quality of diagnosis and treatment through DRGs, the hospital will be guided to shorten the average hospitalization day, reduce medical costs, and improve the overall medical technology level.

Cost Management is an Important Purpose of DRGs in Hospital Management

China still lacks substantial breakthroughs in solving the problem of medical revenue and expenditure difficulties. As a tool, DRGs is like a lever. Paying is a fulcrum. Leveraged pivots can improve the hospital's charging mechanism. On November 15, 2018, the official release of the "4+7 City Drug Centralized Procurement Documents", the purchase and sale channels of hospital drugs and consumables have undergone great changes, and cost management has become the most concerned issue in hospital operations.

Develop a Cost Management Path

Hospital cost management can help hospitals and departments to directly control the cost of specific diseases. The first step is to automatically collect cost data through the cost information exchange platform to complete data extraction. The second step is to establish a cost accounting system for departments and physicians. Dimensions, disease types and other dimensions, collect cost data; Step 3: The hospital competent department in-depth analysis of the cost structure and its relationship with medical service capabilities, quality, and efficiency based on the obtained cost data, and formulate cost accounting and allocation methods, and continually revise Cost management path.

Improve the Whole Process of DRGs Cost Management

Public hospitals have entered the "cost era" from the "growth era", and the concept of cost has been deeply rooted in the hearts of the people, relying on the care and participation of every cadre and staff in the hospital to realize the cost management of the whole process of medical services based on DRGs.

Cost accounting. The purpose of cost accounting is to optimize the comprehensive benefits of public hospitals. The DRGs group is used as the cost calculation object to obtain and calculate the hospital disease cost data in real time, which provides the basis for cost analysis and cost assessment.

Cost analysis. Taking DRGs as the core, based on big data, from the perspective of disease types, comprehensively analyze hospital operating costs[2], and analyze the impact of changes in cost factors on hospitals.
Cost control. Cost control is a means of controlling the consumption of medical resources, helping hospitals to understand their own cost status in a timely manner, and providing a data basis for the corresponding adjustment of costs. According to the results of cost analysis, the cost of medical funds is adjusted to promote the continuous reduction of costs. Hospitals can control costs from bed cost, project cost, surgery cost, and consumable cost.

Cost assessment. The hospital decomposes cost plans and goals, and further uncovers problems in medical expenses, drug expenditures, and expense management. Formulate internal cost assessment indicators, reach responsible units, clarify responsibilities, and regularly assess, and guide the department to clarify the cost management objectives and break-even points to achieve financial and business integration.

Disease cost assessment. The diagnosis and treatment criteria and clinical path of the disease should be the guiding principle of diagnosis and treatment, restricting the doctor's medical behavior, eliminating redundant medical services and reducing medical expenses.

Department cost assessment. According to the principle of full cost accounting, the full cost allocation is divided into controllable costs and uncontrollable costs according to whether the costs are controllable. For the controllable costs, it is included in the department according to the appropriate method, and is strictly assessed by the department, and the cost is uncontrollable. The functional department is responsible for implementing the control.

Establish a cost management platform based on DRGs. The cost management platform can effectively solve all kinds of information island problems, rationalize the cost of hospital operation management, find out the uncontrollable cost and controllable cost composition and distribution, and extract the expenses incurred on each patient, such as personnel expenses and health. Material fees, medicines, and depreciation of fixed assets. Use big data technology to develop the relationship between DRGs disease and cost. See below.

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**Principles of DRGs Control Costs**

The medical expenses of public hospitals under the DRGs payment method cannot be used as income, which should be understood as the hospital's input. The DRGs are priced per unit of hospitalization. In principle, the prices of the same DRGs group are the same. The current pricing method is based on the previous cost data, considering the medical resources consumption of the
disease, the performance of the hospital operation, the change of the social price level, the medical insurance payment and other factors to determine the total medical expenses, and then allocate the medical resources according to the cost weight of each DRG group. Compare the 2016 cost of DRGs for appendicitis with the actual medical expenses in the top three hospitals in a province, see the table below.

Table 1. 2016 Comparison of Cost Criteria for Appendicitis DRGs and Actual Medical Expenses in the Top Three Hospitals in a Province.

<table>
<thead>
<tr>
<th>DRGs group</th>
<th>Grouping feature</th>
<th>Cost standard</th>
<th>Actual medical average cost</th>
<th>Balance analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRG1</td>
<td>No surgery, no complications</td>
<td>3705</td>
<td>3918</td>
<td>-213</td>
</tr>
<tr>
<td>DRG2</td>
<td>No surgery, no complications</td>
<td>4299</td>
<td>4578</td>
<td>-279</td>
</tr>
<tr>
<td>DRG3</td>
<td>Have surgery, no complications, male</td>
<td>8857</td>
<td>9402</td>
<td>-545</td>
</tr>
<tr>
<td>DRG4</td>
<td>Have surgery, no complications, female</td>
<td>7596</td>
<td>8003</td>
<td>-407</td>
</tr>
<tr>
<td>DRG5</td>
<td>Have surgery, have complications, male</td>
<td>9421</td>
<td>9872</td>
<td>-451</td>
</tr>
<tr>
<td>DRG6</td>
<td>Have surgery, have complications, women</td>
<td>10210</td>
<td>10779</td>
<td>-569</td>
</tr>
</tbody>
</table>

According to the results in the table 1, it can be seen that the cost standard of DRGs is lower than the actual medical expenses paid by the patients, indicating that the DRGs cost standard can control and adjust the medical expenses[3]. Hospitals can use DRGs to control the cost of diagnosis and treatment and improve resource utilization.

Conclusion

The implementation of DRGs is not completed overnight, it is a process of continuous improvement and improvement. In the future, we should understand the significance of DRG reform from a higher pattern, give full play to the incentive effect of DRGs on medical services, payment, evaluation and management, and guide the hospital management model from extensive administrative management to fine information management; at a deeper level. Improve the application level of DRGs and exert DRGs application effects from a wider range.

References

