

Research on Hospital Cost Management based on Responsibility Cost Budget

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Abstract. Because of the complexity of medical cost management itself, hospital cost management has the characteristics of short development time and weak foundation. Although budget and final accounts management play a role of planning adjustment and supervision and control of hospital expenditure to a certain extent, in the process of implementation, hospitals often have problems such as paying more attention to income than expenditure, adding more benefits than accounting. This paper establishes the basic analysis framework of hospital cost management, formulates and decomposes the responsibility budget cost, and to some extent solves the need of establishing a complete hospital cost management system.

Keywords: Hospital Cost Management; Responsibility Budget Cost; Factor Distribution Method.

1. Introduction

In the 1990s, China's medical and health industry began to carry out market-oriented reform. Thereafter, the cost management of hospitals in China has developed rapidly. However, due to some factors, such as the complexity of medical cost management, short development time and weak foundation, there are still some urgent problems in hospital cost management in China. Under the planned economic system before the reform, the means of hospital economic management are relatively weak. Extensive budget management is the only way to arrange and control the funds used and managed by the hospital throughout the year. Although budget and final accounts management plays a role of planning adjustment and supervision and control of hospital expenditure to a certain extent, in the process of implementation, hospitals often have problems such as paying more attention to income than expenditure, adding more benefits than accounting. In fact, the hospital's original budget accounting system does not provide much room for development of cost management. The author thinks that under the condition of market economy, the diversification of medical service subjects and the intensification of medical market competition can not meet the requirements of hospital development by relying solely on budget management under budget accounting system. How to strengthen hospital cost management has become an urgent problem for hospitals. This problem is particularly serious in public hospitals.

Therefore, many literatures have discussed the problem of hospital cost management. Because of the characteristics of activity-based costing (ABC), it has been widely accepted that ABC is very suitable for hospital cost accounting and management. However, when discussing the application of ABC in hospital cost management, there are also some problems, such as paying more attention to accounting than management, failing to bring hospitals and departments into a unified framework. From the application point of view, hospital cost management undoubtedly includes many levels such as hospitals and departments. The existing literature has split the research of each level, which obviously can not meet the needs of establishing a complete cost management system in hospitals.

2. Importance of Hospital Cost Management

Firstly, it is necessary for hospitals to implement cost calculation and cost management to adapt to objective economic laws. Strengthening hospital cost accounting and striving to reduce hospital costs are important means for hospitals to adapt to macroeconomic laws and improve their own economic benefits.

Secondly, the implementation of cost calculation and cost management in hospitals is the need of scientific management. Medical cost is a comprehensive index reflecting the quality and level of hospital management. Only by carrying out cost accounting and management, recording, calculating, analyzing, comparing and controlling the labor consumption and achievements in the process of medical service, can find the weak links and existing problems in hospital management, and take measures to improve the level of hospital management and realize the standardization, scientificization and modernization of hospital management. The implementation of cost calculation and cost management in hospitals is the need to improve the social and economic benefits of hospitals. The implementation of cost accounting and control enables hospitals to correctly and timely reflect medical expenditure, reduce waste, reduce costs, reduce the burden of patients and society, and achieve the organic unity of economic and social benefits.

The implementation of cost calculation and cost management in hospitals is the need of correct pricing and reasonable compensation. If a hospital wants to operate normally, its normal expenditure must be compensated reasonably. Cost is the lowest limit for setting price. Only by correctly calculating cost can provide basis for reasonably setting medical service price. Medical service charge is not only an important compensation channel for hospitals, but also the source and basis for their survival and development. The current situation of China's health market is that the price of medical services, especially human consumption, is on the low side. The phenomenon of medical support by medicine is widespread, which affects the normal compensation of hospital costs. Scientific allocation of costs can make the cost information of medical services more accurate and comprehensive, which is helpful to guide the formulation of more scientific and reasonable medical service prices.

Finally, the implementation of cost calculation and cost management is the basis for arranging hospital subsidies. According to the spirit of "Guiding Opinions on the Reform of Urban Medical and Health System" transmitted by the General Office of the State Council, the government should reasonably determine the scope of financial and price division of labor and compensation, arrange hospital subsidies, and continue to promote the reform of medical service price. This requires hospitals to establish a scientific medical service cost accounting system. The implementation of cost calculation and cost management in hospitals is the need to improve the accounting information system of hospitals. The implementation of cost accounting in hospitals helps to transform the hospital accounting system from cash basis to accrual basis, to improve the accounting information system of hospitals, and to provide decision-making information for users of internal and external information.

3. Construction of Hospital Responsibility Budget Cost

According to the current cost management level of hospitals in China, the development goal in a relatively long period of time should be to construct the third stage system of department level. The basic framework of the system is (In fact, the above basic framework can not only be applied to the third stage system at the Department level, as long as the hospital has a certain foundation in management and information management, and can provide operational information at the level of service items and disease categories, but also be fully applicable to the third stage system at the level of service items and disease categories.):

Firstly, to divide the responsible units according to the characteristics of the hospital itself, and to define the corresponding scope of powers and responsibilities.

Secondly, according to the requirements of the whole cost accounting management, the basic principles of the activity-based costing and the basic principles of the responsibility cost method, the responsibility cost budget is formulated, and the departments are decomposed.

Thirdly, In the process of hospital management, the actual cost of each department is calculated according to the requirements of the whole cost accounting and the basic principles of activity-based costing, serving for the purpose of financial accounting. At the same time, the actual responsibility cost of each department is calculated according to the requirements of the whole cost accounting management, the basic principles of the activity-based costing and the responsibility cost method.

Fourthly, in the process of hospital operation and management, cost control is carried out by means of feedback of difference information of responsibility cost, daily control means of responsibility cost and optimization of operation chain.

Finally, According to the assessment index of responsibility cost, the departments are assessed by certain methods and encouraged.

The responsibility cost center refers to the internal unit which is responsible for the management of the cost incurred by the special person in the hospital. The division of responsibility cost center is not based on the actual amount of cost, but on whether the cost occurs, whether the responsibility can be distinguished, and whether the achievement can be distinguished. As long as the results of work can be accounted for separately, responsibility centers can be established from hospitals to individuals.

According to the principle of controllability, the responsibility cost centers should be divided not only according to the management level, but also according to the control scope, so that the economic responsibility and controllability of each responsibility cost center can be clearly divided, and the corresponding responsibility can be assumed according to their respective control scope, highlighting the goal of key control. Therefore, this study divides the departments of ZL hospital into two levels of vertical responsibility cost centers of Hospital-Department according to the management level, and three horizontal responsibility cost centers of main Department-Assistant operation department-administrative department according to the management scope.

In the responsibility cost centers at all levels, the responsible person is responsible for the costs incurred by his unit. To implement responsibility cost management, hospital cost should be divided into controllable cost and uncontrollable cost according to cost characteristics. Controllable and uncontrollable are all aimed at a specific cost center. As the cost control center, the controllable cost must conform to the following three criteria: (1) each cost responsibility center can know what kind of nature will be consumed; (2) each cost responsibility center can measure its consumption; (3) each cost responsibility center can control and regulate its consumption. Based on the above criteria and the actual situation of the hospital, the controllable cost items of each department include material fee, salary and welfare fee, posts and telecommunications fee, drug laundry fee, water and electricity fee, equipment-related fee and non-traceable fee. The uncontrollable cost includes disinfection fee, house-related fee and other expenses allocated by other departments.

4. Establishment and Decomposition of Responsibility Cost Budget

The responsibility cost budget is the level of responsibility cost expected to be reached by the responsibility cost center within a certain period of time. The compilation process of responsibility cost budget is an important part of the prior control of responsibility cost. After repeated calculation by various departments of the hospital, some unreasonable and inefficient expenditure can be controlled before it occurs. The responsibility cost budget can provide the standard for the daily control of the responsibility cost, and put forward the objectives and requirements of the responsibility cost management, so as to provide the conditions for the responsibility centers to calculate and control the budget differences in time.

The establishment of responsibility cost budget must follow the following requirements: firstly, the hospital budget should be adapted to the overall budget of the hospital. The overall budget of hospitals should be compiled from a global perspective according to the overall objective of the hospital, so that the responsibility cost budget should be compatible with the general budget of the hospital. Secondly, the advanced nature, feasibility and rationality of the responsibility cost budget should be maintained, which requires the pre responsibility cost. The calculation must go through two processes of "bottom-up" and "top-down". Each department declares the budget to the hospital and summarizes it step by step. Then, the hospital decomposes the responsibility cost budget from top to bottom according to the historical data and the general plan of the budget period, resolutely eliminating the "head-slapping" method of budget formulation and decomposition under the leadership of the hospital; thirdly, the responsibility cost centers and the responsibility cost centers. The various responsibility cost indicators within the center must be linked up and balanced

comprehensively. Fourthly, the process of budget formulation and decomposition should also be cost-effective, and the cost can not be excessively high because of blindly pursuing accuracy.

The decomposition process of the responsibility cost budget is to decompose the total cost budget of the hospital and implement it into the responsibility cost centers. Its purpose is to make the heads of the cost centers understand their responsibilities and control matters in the implementation of the budget. Therefore, responsibility cost budget is the necessary supplement and concretization of hospital budget allocation. Responsibility cost decomposition mainly uses factor allocation method to decompose the budget, formulate responsibility cost budget at all levels, and then divide each budget into corresponding cost items according to different nature, thus forming a top-down responsibility cost budget decomposition system.

On the basis of determining the total expenditure of all departments in the hospital, the hospital uses factor allocation method and equivalent calculation method to determine the responsibility cost budget of each department. The theoretical model of division responsibility cost budget decomposition as follow:

$$Y_{ij} = A_{ij} \times B_{ij} \quad i = 1, 2, \dots, m; j = 1, 2, \dots, n$$

$$Y_i = \sum_{j=1}^n Y_{ij} = \sum_{j=1}^n (A_j \times B_{ij}) \quad i = 1, 2, \dots, m$$

$$Y_j = \sum_{i=1}^m Y_{ij} = A_j \times B_j \quad B_j = \sum_{i=1}^m B_{ij} \quad j = 1, 2, \dots, n$$

$$Y = \sum_{j=1}^n Y_j = \sum_{j=1}^n \sum_{i=1}^m Y_{ij} = \sum_{j=1}^n (A_j \times B_j)$$

Y_{ij} refers to the item j for department I , there are m departments and n expenses;

Y_i refers to the total expenses for department I ;

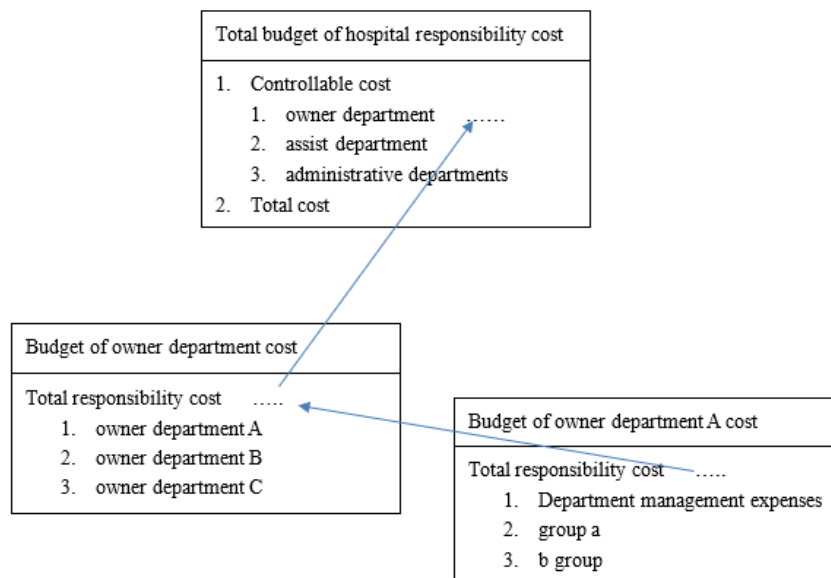
Y_j refers to the expenses for the item j ;

Y refers to the total expenses for all departments;

A_j refers to the item j cost per equivalent standard;

B_{ij} refers to the equivalent of item j for department i ;

B_j refers to the total equivalent for item j .



5. Conclusion

Hospital cost accounting can be divided into three levels: hospital level cost, department level cost, medical service unit and disease type cost.

The first level is the total cost of the hospital. The total cost of hospital consists of medical service cost and drug operation cost.

The second level is the Department cost. According to the service function, the hospital is divided into three departments: management, medical treatment and drug management. If further classified according to the main and auxiliary departments on this basis, all departments in the hospital can be classified into five categories: clinical departments, medical and technical departments, drug management departments, auxiliary operations departments and administrative departments. Departmental costs refer to the costs incurred separately in the above five categories of departments.

The third level is the cost of service unit and disease type; that is, the unit cost calculated according to needs. The estimated objects include the cost of medical department items, visits, bed days, disease types, drug cost and preparation cost of drug business unit.

Timely transmission and feedback of information is the basic condition for daily cost control. Therefore, a responsibility cost information feedback system is established to accurately and concretely measure the indicators of responsibility cost and provide them to those responsible for decision-making in an appropriate form in time.

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