Enlightens from Practice of Disease–Based Score Payment in China

Hui WANG¹,a and Man-li CHEN²,b,*

¹Management School, Hubei University of Chinese Medicine, Wuhan, Hubei, China
²Management School, Hubei University of Chinese Medicine, Wuhan, Hubei, China

¹wanghui83527@163.com; ²lily1680@163.com
*Corresponding author

Keywords: Disease–Based Score Payment, Basic Medical Insurance, Payment Reform, Further Promotion.

Abstract. This article analysis structure and details of disease-based score payment, taking payment policy scheme in Huai’an City and Nanchang City for example. Disease-based score payment skillfully combine globe budget control, payment of disease and point system. This payment not only helps controlling cost, but also helps to incentive mechanism. Some problems have been found in practice. So this article put forward some suggestion for further promotion.

Introduction

This paper takes the national Disease–based score payment system in the city, Huai’an City of Jiangsu Province and Nanchang City of Jiangxi Province as examples, briefly introduces the main contents of the system of payment by disease.

With the rapid development of China's basic medical insurance system, the coverage of the population has been continuously expanded, and the insurance benefits have been continuously improved, the operation of the basic medical insurance fund has been in a state of tension. Therefore, the reform of the payment system and the control of the total medical expenses have become important problems in the development of the medical insurance system. Globe Budget is the trend of future payment system reform. At present, the payment according to the score value of the disease combines the Globe Buget, the SCORE PAYMENT and the DRGs are three settlement methods skillfully, which avoids the disadvantages of simply implementing one payment system and has achieved results in the practice area.

The Definition and Connotation of Disease–Based Score Payment

Payment by disease value is based on globe budget and score payment. Under the premise of determining the total budget of medical insurance fund expenditure in a budget year, the scores (points) of each disease are given, and the insured persons are provided according to each medical institution. The cumulative score of the medical service is used for payment.

The inpatient services provided by the medical institution are no longer paid according to the currency price, but are cumulatively scored according to a predetermined relative score (ie, the number of points) of each disease. After the annual budget settlement, the cash value per cent is determined according to the actual accumulated scores of all medical institutions in the region, the cash value of each score = the total budget of the annual medical insurance fund/the cumulative total score of all medical institutions in the region. Finally, the medical insurance institution pays the fee according to the product of the actual total score of each medical institution and the cash value of each score.

This paper takes the national Disease–based score payment system in the city, Huai’an City of Jiangsu Province and Nanchang City of Jiangxi Province as examples, briefly introduces the main contents of the system of payment by disease.
Preparation of total budget

According to the principle of “receiving expenditure, balance of income and expenditure, and slight balance”, the fund allocation and expenditure budget are determined according to the total income of the medical insurance fund. In both cities, after extracting the risk reserve, refer to the use of funds in previous years, deduct the subjects paid according to the non-sickness scores, and determine the total budget paid by the disease value. The total budget for each subject is determined by the average ratio and policy adjustments that have actually taken place in the previous three years.

Determining the disease and its score

The formulation of the “Symbolic Score Table” is the basis for the implementation of the system. The disease value is the relative value of the medical technology content, drugs, materials, etc. for treating a disease. Based on the medical expenses data of the past year, the disease score table is a summary of the diseases that occurred in the first few years of the designated hospitals in the city, and the number of diseases that actually occurred in more than 10 cases per year is regarded as a common disease. The classification is summarized according to the (ICD-10). [1]After Nanchang C selects the baseline disease to determine the benchmark score, the other hospitals compare the average hospitalization expenses of the baseline disease, and determine the scores of each disease by expert argumentation. Huai’an divides the average cost of hospitalization of each disease by the same fixed parameters and converts it into corresponding scores. After expert discussion, the scores of each disease are finally determined. The disease types and their scores will be adjusted according to the actual situation. For example, 506 cases were initially included in Huai’an, and increased to 892 in 2013. Nanchang screened 627 kinds of diseases in 2013, and some diseases were adjusted to 638 in 2015. Species, the disease scores will also be adjusted according to the actual situation every year. [2]

Settlement method for Disease–Based Score payment

The settlement amount of the same disease at different levels of medical institutions is different. The most common method used in various places is to multiply the disease score by the grade factor of the hospital to obtain the disease score of a specific case. For example, Huai’an has set a three-level hospital coefficient of 1, a secondary hospital of 0.85, and a primary hospital of 0.6, and differentially handles the disease scores of three levels of hospitals. Nanchang does not set the hospital grade factor, but when formulating the fund payment budget, according to the average proportion of the tertiary hospitals in the first three years of the total medical insurance expenditure, set the settlement quota of the third, second and first class hospitals.

Non-ordinary case settlement method. In the actual settlement, there will be many cases that cannot directly apply the Disease Score Table. For example, the illness of the hospitalized case is not included in the disease score table, and the actual cost is far from the average cost. Serious cases, etc. In the design of the system, it is necessary to consider the settlement method of non-ordinary cases in order to increase the adaptability of payment according to the disease value.

Fee settlement method. In terms of settlement, all localities adopt a monthly (quarterly) combination of pre-settlement fees for medical institutions and year-end final accounts. The first type, represented by Huai’an City, calculates the current total score of the current period and the unit price of the current period, and settles the current expenses. When necessary, the budget will be adjusted according to the use of the fund in the middle of the year. At the end of the year, the annual disease and expenses are reviewed and comprehensively sorted out, and the overall settlement is made. The second type is represented by Nanchang and Zhongshan. The monthly payment is made to the medical institutions for reference to the actual payment amount of the unified fund of the same level hospital in the same month of the previous year. The settlement amount of the medical institution is calculated at the end of the year.
Supervision of Medical Services

Audit diagnosis. The main drawback of Based-Score Payment is that the medical institution will have the motivation to upgrade the diagnosis to get higher compensation. All localities will review the diagnosis and its scores as the focus of supervision, and impose severe penalties on “diagnostic upgrades” and “high set points” behaviors.

Set medical behavior assessment indicators. Several core assessment indicators have been selected in various places to regulate the behavior of medical institutions. The ratio of the number of hospitalizations to the number of inpatients in the designated hospitals in Huai'an, and the proportion of the individual burden of the insured persons. The three indicators of Nanchang City's choice of repeated hospitalization rate, percapita hospitalization cost growth rate and actual reimbursement ratio constitute the assessment coefficient for designated medical institutions. Huai'an City and Nanchang City both stipulate the upper limit of the individual's self-pay ratio, so as to avoid the hospital transferring the cost to the patient when paying the disease-based value.

Effect of Disease-Based Score Payment

Established a competition mechanism based on total control

Disease-based Score Payment based on the total budget can not only ensure the safety of the operation of the medical insurance fund, but also promote the competition of medical institutions. After the medical institutions know the total amount of medical insurance funds, they need to accumulate points and pass the evaluation of the medical insurance institutions in order to obtain the corresponding medical insurance payment. The “point value “represents the service volume of the hospital. With the score, each medical institution can obtain the corresponding payment from the total amount of the medical insurance fund, and must obtain income by providing more services and strengthening management. The medical service market will form a situation in which various medical institutions compete with each other.

Reduced the growth rate of medical insurance fund expenditure

The implementation of the Disease-based Score Payment has better control of fund expenditures. The growth rate of Nanchang Medical Insurance Co-ordination Fund decreased from 37.53% in 2012 to 17.02% in 2014. The growth rate of per capita use of unified funds decreased from 12.91% in 2012 to 6.75% in 2014.HuaianFrom 2004 to 2011, the average medical expenses in the scope of urban workers' medical insurance increased by 24.6%, with an average annual growth rate of only 2.79%, far lower than the average increase of 7.6% in the same period.

The changement for patient self-pay level

In order to avoid the transfer of medical expenses to patients by medical institutions, the assessment indicators of personal self-pay ratio have been set. The personal self-pay ratio in Nanchang in 2011 and 2012 was over 30%. After paying for disease-based Score in 2013, it dropped to 28.30%, and in 2014 it continued to drop to 27.64%. After Huai'an paid for the disease, the personal self-pay ratio of the insured in 2011 decreased to 21.6%.

Problems in Disease-Based Score Payment System

Limited implementation by based score payment

At present, except for Yinchuan in Ningxia District, all medical insurance institutions in the city and all social insurance insured persons in the city are paid according to the based score of the disease, and other areas are partially pay by Disease–based score payment.

The disease score table does not fully meet the clinical needs

There are some problems in the clinical use of the Based Score Payment. First, the disease does not have full coverage. Second, the score is determined only by the first diagnosis. At present, the
disease is determined according to the first diagnosis, and the degree of subdivision is low, which is not enough to reflect the clinical diagnosis and treatment. At last, the method of determining the “score value” is debatable. At present, the actual cost data of previous years in various places is based on the basis value, which reflects the actual situation in previous years, but it is not necessarily scientific.

The settlement methods of different levels of hospitals need to be improved

At present, the difference in compensation between the three levels of hospitals is based on the previous years' medical expenses, which means that the medical insurance fund recognizes the status of medical expenses in previous years, and at the same time agrees with the unreasonable medical services in previous years. Large hospitals will receive more compensation, which is not good for primary and secondary hospitals. This mode of distribution will further solidify the resource allocation between different levels of hospitals, which is not conducive to the implementation of grading diagnosis and treatment.

Suggestions for Further Promotion

First, the capacity of the medical insurance institution needs to be enhanced. The design of the program, and negotiation with medical institutions, settlement of medical expenses after implementation, supervision of medical institutions in medical institutions, etc., medical insurance agencies have a large amount of work. All work requires an increase in the execution capacity of the medical insurance institution. Second, the practice of Disease–based score payment requires the support of clinical professionals. It is essential to establish a negotiation mechanism and agreement management between medical insurance institutions and medical institutions. At last, need a quality information system as a technical support. It is beneficial for medical insurance institutions to collect data and medical information, data statistical analysis, and improve service supervision.

Summary

Although there are some problems in the implementation of payment by disease value, this new settlement method combines several payment systems, and the advantages are very prominent. It has already shown the effect of controlling fund expenditures and regulating medical services. This payment system can indeed provide reference for other regions.

References

[1] Shu-guo Chen. Scientifically realize the total control of medical insurance funds according to the disease value [J].China Health Insurance, 2012, 5(12):49-51.
[2] Xiao-feng Tu, Min Li, Chu-xv Cheng. Payby Disease-Based Score. [J].China Social Security, 2014, 20(8):76-77.
[3] Wei XV, Mei Hao, Zhen-zhen Du. Practice and thinking on paying by disease value under the control of total amount [J].China Pharmacy. 2016, 27(6):721-723.
[4] Feng Lu, Jing-Song, Xiao-yang Sun. An Empirical Study on the Payment of Disease Values in Huai'an City [J].Acta Universitatis Medicinalis Nanjing (Social Science). 2014, 11(4):280-283.
[5] Bo Zhang, Tao Liu, Fu-ling Gong. Evaluation of the payment by disease type under the control of total amount—based on the practice of Yinchuan City [J].China Health Insurance, 2016, (7):35-38.