Diagnosis-Related Groups' Payment Reform in Beijing

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To the Editor: In 1983, a new prospective case-based reimbursement system called diagnosis-related groups (DRGs) emerged in the United States. Since then, this payment system has been widely applied by other developed countries, such as Australia, Germany, France, Finland, and Japan, in the form of a well-functioning DRG-based prospective payment system (PPS).[1-4] Beijing's Basic Medical Insurance (BBMI) scheme was launched in 2001, and its main task has been gradually covered all residents recorded on household register, including urban employees, rural residents, the elderly, children, and the unemployed. With the rapid coverage expansion of the insured crowd, the increasing rate of medical expenses has far exceeded the growth rate of the insurance tax, and the overall health insurance fund is in an imbalanced state. However, in 2010, "hold the card" policy was implemented for the convenience of patients' reimbursement, which means that patients just pay a little of personal expenses, and the others are settled by the hospital and the Center of Medical Insurance Management (CMIM). From then on, the whole medical expenses of Beijing increased rapidly by the rate of 30–40% annual year, and medical fund could not afford the increasing rate seriously. As a result, since January 2011, all secondary and tertiary hospitals have been funded using a global control approach (the increasing rate <25% and 18%, respectively) according to the provisions of the BBMI document (No. 204, 2011). At the same time, six public tertiary hospitals in Beijing successively implemented the DRG-PPS, which symbolized the staring of medical payment reform in the mainland of China.

The DRGs' payment reform in Beijing was different from single disease-based approach in any other administrative areas; it is a genuine DRG-PPS, which have had >10 years of experiences in research and exploration. The repayment reform aimed to test the practicability of payment policy, the checkout process, and hospital information system. The primary reform scope was limited to 108 groups of total DRGs (650 groups), which accounted for about 25% of total patients in six hospitals and about 28% hospital expenditure. The unit cost of DRG is an estimated average cost of all patients at public hospital level in the fourth quarter of last year and is constructed for calculating inpatient compensation.

After 6 years, the implementation of DRG system was fairly smooth, and original expectations have been achieved. However, this system still has many problems during the practical process.

First, the checkout process is based on the data from the first page of electronic medical records (EMRs), which are a systematic collection of 172 item information about individual patients. Each EMR is related to a DRG record.[5] Although CMIM annually organized all kinds of the trainings and the assessments of the medical record coding, the integrity and accuracy of EMR first page were considerably lower in most hospitals without DRGs-PPS, which would influence the diagnosis coding of each patient, so the unified medical standard system, especially diagnosis-coding system, should be improved, and intensive training on filling in EMR first page should be requested for each physician.

Second, this reform pilot only covers the diagnosis of 108 groups, and Beijing urban citizens, other groups, and patients are still funded by fee-for-service, so six hospitals had to face an awkward checkout process for different diseases and different inpatients. This differentiated checkout process led to some problems in hospital management such as the medical ethics, clinical notification, and patient trust. On the other hand, hospital performance incentives could not be implemented in all of the diagnosis groups managed by the physicians, and fund surplus rates were gradually decreased in several pilot hospitals (from average 18% at beginning to −1% at present). Some hospitals probably had a chance to select settlement according to the actual bills, resulting in that the rates of fund balance were incredibly higher (about 20%). Many cases which should be included in the groups were lost, and the loss of unreal data would influence the decision of the weight and rates of DRGs.

Third, the revenue of each public hospital is determined administratively based on a historical cost, and as a result, the imbursement from all of the pilot DRGs was only loosely included in the global control, and the effect of DRGs' cost control was greatly reduced. In public hospitals, from the point of view of cost structure, there are two serious distorted rates: the proportion of inpatient revenue (30–40%) and the proportion of drug expenditure (about 60%). However, the price system was very low, delayed, and distorted, which could not reflect medical staff's technology. Under the circumstances of global budget payment, DRG-PPS reform could not fundamentally alter the distorted cost structure and deeply influence the medical treatment behavior.

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A series of corresponding reform measures such as price regulation and grading clinic should be implemented early.

Fourth, the overall DRG rate is determined based on a historical cost level and budgetary cost, which has not been adjusted since the beginning of reform. There were no information feedback and communications on DRGs among six hospital managers and physicians. No official or private organizations could timely deal with more and more problems such as the adjustment of the diagnostic classification, the coding, and each DRG weight. Many medical associations could not take any of the responsibility for designing, implementing, evaluating, analyzing, and improving the DRG system. Till now, there is no effective mechanism underlying DRGs.

In conclusion, DRG-PPS has created a profound change in the management style of six hospitals. As administrators and physicians become more familiar with DRGs and DRG applications in hospital management, the full benefits of DRGs, in terms of containing costs and improving quality, are being realized.

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Conflicts of interest

References

1. Mikkola H, Keskimäki I, Häkkinen U. DRG-related prices applied in a public health care system – Can Finland learn from Norway and Sweden? Health Policy 2002;59:37-51. doi: 10.1016/S0168-8510(01)00169-5.
2. Or Z. Implementation of DRG payment in France: Issues and recent developments. Health Policy 2014;117:146-50. doi: 10.1016/j.healthpol.2014.05.006.
3. Klein-Hitpaß U, Scheller-Kreinsen D. Policy trends and reforms in the German DRG-based hospital payment system. Health Policy 2015;119:252-7. doi: 10.1016/j.healthpol.2015.01.006.
4. Hamada H, Sekimoto M, Imanaka Y. Effects of the per diem prospective payment system with DRG-like grouping system (DPC/PDPS) on resource usage and healthcare quality in Japan. Health Policy 2012;107:194-201. doi: 10.1016/j.healthpol.2012.01.002.
5. Canino G, Guzzi PH, Tradigo G, Zhang A, Veltri P. On the analysis of diseases and their related geographical data. IEEE J Biomed Health Inform 2017;21:228-37. doi: 10.1109/JBHI.2015.2496424.