

ESSENCE AND PRINCIPLES OF THE METHOD OF GROUP ECONOMIC STANDARDS FOR CALCULATION THE COST OF MEDICAL CARE IN HOSPITAL

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The method of group economic standards of health care was developed in the 70s of the last century at Yale University and introduced in the United States in 1983 as a basic basis for payment for medical services in the system "Medicare". 467 clinical and statistical groups became the initial medical and economic base. The criteria for their selection were: homogeneity of diseases and homogeneity of medical and diagnostic procedures; homogeneity of volumes and structure of resources used at treatment.

After the US Congress approved the system of diagnostic-related groups as a method of payment for hospitals for treated patients, similar payment mechanisms for inpatient care began to be gradually introduced in most countries with developed health care systems. However, the reasons for implementation, as well as the characteristics of group economic standards of health care in each country differ significantly from each other. Different and their names: in the US and Germany - it's DRG (Dignosis-Related Group), in Canada CMG (Case Mix Group), in the UK - Health Care Resource Groups (HRGs). Relevant national versions have been developed in the Netherlands, Norway, Sweden, France, Norway and Hungary [1].

Thus, today in most countries with a developed health care system, the DRG system generally covers inpatient care, although in some countries a DRG has been developed for outpatient care. For example, to pay for the work of surgery departments one day.

With the introduction of inpatient DRG treatment in the Medicare system in the United States, the average length of stay decreased by 15 percent in the first three years after the introduction of this payment system. The reduction in the cost of treatment for diagnoses such as heart disease and hip fracture was 24 percent.

In the first stages of implementation of this system, medical services provided in hospitals were described by a rather concise set of clinical data (diagnoses and several surgical manipulations), demographic data (sex, age) and definition of resources used (cost, duration of hospitalization).

Subsequently, DRG systems, especially Australian and German borrowed from it, as well as France and the Netherlands, began to pay more attention to all types of procedures performed during hospitalization. Groups in such systems can be defined more precisely not as diagnostically connected groups, and as diagnostic and therapeutic groups - such name they have in the Netherlands. In the United States, there is only differentiation in the presence or absence of other chronic diseases. In France, a 4-level gradation is used according to the complexity of the patient's condition, and in Germany about 9 levels are used for each DRG.

The essence of the method of group economic standards is to calculate tariffs based on statistical analysis of a large amount of actual costs of inpatient treatment. Each disease within a separate clinical and statistical group has a weighted average of the complexity of the performed medical and diagnostic procedures, the duration of hospitalization and, accordingly, the average amount spent. Payment for the treated patient is made at a predetermined normalized cost of treatment in case of hospitalization. That is, the DRG system is implemented using patient classifications, which allows you to link each treated case with the resources used [3].

Groups of cases are defined so that they are medically and economically homogeneous. In addition, the average cost of a case within a group of cases should be statistically stable in repeated samples. At the heart of the formation of clinical-cost groups for diagnoses are three main principles: medical homogeneity or clinical consistency; economic homogeneity or equal resource intensity; statistical representativeness.

The essence of the first principle is the clinical consistency, which is necessary for the system of classification of cases to be logical from a medical point of view, to be understood and perceived by both insurance medical companies and health care providers. Cases grouped into one group by diagnosis should be similar in anatomical system and belong to the same group of diseases.

Classification makes sense from a clinical point of view, so it should take into account the history of the disease, methods of case management, prognosis, the likelihood of certain types of complications and the risk of death. Determining clinical significance is a subjective process that is best accomplished by reaching consensus with clinicians recognized as experts in their specialization.

The Australian National Clinical Expenditure Groups (AN-DRG) use the following criteria to ensure clinical coherence: grouping by basic anatomical systems; distribution of medical and clinical cases; hierarchy of procedures, medical problems and other factors that differentiate care processes[4].

The second principle assumes economic homogeneity or equal resource intensity. The principle is based on the thesis that each diagnosis in a group of cases should have a similar resource intensity and cost in relation to a number of diagnostic and treatment services required for complete diagnosis and treatment of the case or completion of the treatment phase. There will be a redistribution of costs in the middle of each diagnostic group, but it should be relatively narrow.

The calculation of resource intensity is based on determining the average length of hospital stay and the average cost of a bed-day in the department, where such cases are usually treated, without calculating the cost of each individual service.

The essence of the third principle is statistical representativeness. Each clinical cost group should include a sufficient number of hospital cases to form stable aggregate cost calculations for each case in repeated samples.

The feasibility of implementing the method of payment for hospitals by the method of diagnostically - related groups is as follows: reduction of hospitalization waiting time; stimulating activities through competition of health care providers; giving patients the opportunity to choose hospitals; control over the cost of medical care; increasing "transparency" in the financing of inpatient and specialized medical care; harmonization of payment systems for public (state) and private hospital providers.

The main result of using the DRG system is a reduction in the average length of stay of the patient in the hospital and the number of hospitals themselves.

As the experience of the United States and Western European countries shows, the use of the method of clinical diagnostic groups contributes to the intensification of hospitals, the use of resource-saving technologies. Hospitals are trying to reduce the duration of treatment, for which they organize pre-hospital examination and preparation for surgery in an outpatient setting, seek to move the final stage of treatment and rehabilitation of patients in the outpatient sector or at home.

In terms of payment for diagnostically related groups, the volume of medical care in outpatient surgery is also significantly increasing.

However, the reduction in the cost of one hospitalization is offset by an increase in their total number. The use of the clinical and statistical groups (CSG) method in itself does not increase the efficiency of resource use and does not help to overcome structural imbalances.

Another positive of the DRG system is the increase in patient mobility, which leads to the development of an interconnected health care system of different countries. Currently, the EuroDRG project has been launched in the European Union.

The first phase of the project focused on the complexity of hospital payments in national contexts. Particular emphasis was placed on identifying those factors that are crucial for: calculation of adequate payments for treatment cases; a fair comparison of the efficiency of hospitals in a particular EU country and across Europe; study the relationship between costs and quality of care provided in hospitals.

The EURODRG project aimed to achieve a strategic impact in four dimensions: advancement of the state of the art, enhancement of cooperation between researchers in Europe and other geographic regions to promote integration and excellence of European research in the field, development of the scientific evidence base that supports the Member States to better organize their health systems, and transfer of research results into practice to empower policy and decision makers to better manage and reform health care systems.

The project was organized in three Phases and has scrutinized both, the design features of DRG systems in Europe as well as the performance of these systems across different countries. In addition, it had a strong focus on ensuring the transfer of knowledge from research into practice by providing recommendations for policy makers within Europe and beyond who are working on improving their national DRG-based hospital payment systems or designing successful policies for the slowly emerging pan-European hospital market [2].

In general, it can now be stated that the payment of hospital care in the European Union has already gone from paying according to the global budget and at the rates for a day-bed or treated patient to payment for a case of treatment based on DRG.

References:

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