Original Article

THE MISUSE OF CLINICAL PATHS AS AN INSTRUMENT FOR FUNDING INPATIENT CARE IN BULGARIA

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Summary

Clinical paths in Bulgaria are used to assess quality they are an instrument to fund hospitals. Their use and incompleteness cause limited access of Bulgarian citizens to international treatment guidelines, particularly the guidelines of the European Society of Cardiology for the EU member states. Thus, quality of treatment worsens and mortality increases. The Bulgarian system of regulated medical guidelines by all therapeutic and surgical lines still suffers many deficiencies. The National Health Insurance Fund should change its policy and use the system of clinical paths for quality control, as well to conform to the ESC guidelines.

Key words: clinical paths, treatment guidelines, health insurance fund, funding, quality assessment.

Introduction

One of the most widely spread quality assessment methods in healthcare activity is the assessment through medical guidelines. In this case, particular healthcare services are compared to pre-determined and pre-adopted guidelines, which are a medical algorithm for the treatment of a specific disorder. In the healthcare sector, methodical guidelines are designed based on gained experience and generalized assessment. Regulation of particular quality guidelines is a common problem of every reform in healthcare. International medical guidelines have been adopted by many national legislations. In Bulgaria there are still no regulated medical guidelines for all conservative and surgical treatment. The purpose of this paper is to present the guidelines for CVD management and the way they differ from the Bulgarian practice, show the differences and discrepancies, and recommend more elaborate use of, and adherence to the European methodology.

Methods

An appropriate specific example for the implementation of the guidelines for ensuring the quality of inpatient medical activity in Bulgaria is the clinical path. Essentially, it is an organizational, diagnostic and therapeutic algorithm, which, through a balance between medical and economical expedience, resolves

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the growing conflict between clinical freedom and healthcare management [1]. The multidisciplinary approach is typical for the clinical path, which constitutes a set of instructions, describing the common and necessary way for providing medical care for a specific group of patients, and allowing deviations aimed at improving healthcare quality. Therefore, clinical paths require continuous reassessment and updating.

The clinical paths of the National Health Insurance Fund (NHIF) are the only approach to ensure quality of medical service in inpatient care, in accordance with the coverage from available resources. The current situation in Bulgaria (2008-2009) is compared with the EU practice. Clinical paths as a means for healthcare reimbursement in Bulgaria are compared with the healthcare reimbursement practices used in the EU. Using the methodology of simple comparison, this article reveals the differences between the Bulgarian and EU practices.

Results

What in fact happens with the use of clinical paths in Bulgaria and their insufficiency?

Table 1 presents the most common cardiovascular pathology, which is currently missing from the content of clinical paths. The conditions listed in Table 1 are all considered for CVD treatment according to the ESC guidelines [2, 3]. The logical conclusion that could be drawn from Table 1 is that Bulgarian regulations do not conform with the latest ESC guidelines. Such gaps make doctors use either of the two possibilities:

a) not to treat patients in accordance with the algorithm of international medical guidelines, which directly leads to higher mortality rate;

b) to treat patients in accordance with medical guidelines, but to prepare their documentation based on existing clinical paths, which directly infringes the contract between the inpatient care provider and the NHIF.

Table 1. List of diseases that lack clinical paths in Bulgaria

Disease*	**Medical methods missing from clinical paths**
Cardiogenic shock	Neither the life saving mechanical treatment through counterpulsation, nor the direct haemodynamic treatment through SwanGanz catheter are included in the medical algorithm
AMI	Discrepancies in the medication - GP B/A inhibitors are not reimbursed
Hypertensive crisis	No clinical path
Pulmonary hypertension	No clinical path
CRT implantation	No clinical path
ICD implantation	No clinical path
Heart trauma	No clinical path
NSTEMI	No clinical path

* According to ESC guidelines, all of the enumerated conditions should be reimbursed by the state.

The lack of clinical paths for extracardiac vascular pathology represents a similar situation. The NHIF does not fund most aspects of carotid and vertebral pathology, and its interventional treatment is non-existing. Bulgaria holds the first place in stroke and mortality rates in the European Union, with mortality rates thrice higher than the average in Europe (EHJ, 2008) [4, 5]. Over 80% of the strokes are ischaemic, and 30% are due to carotid pathology. They can be treated by angioplasty, moreover, without distal protection.

Therefore, the insufficiency of clinical paths in Bulgaria limits the accessibility of Bulgarian citizens to successful modern life-saving treatment methods. The situation in outpatient care is similar - Table 2. Many tests and diagnostics are not reimbursed, and are therefore not ESC guidelines confirmed. Obviously, rules and requirements for diagnosing outpatients severely restrict their accessibility to quality health care.

Table 2. Testing and diagnostics in Bulgaria without state reimbursement

Condition*	Missing compulsory examinations in compliance with medical guidelines
I 50 – Congestive HF	Lack of creatinine testing
I 20 – Angina Pectoris	Lack of cholesterol fractions testing, EchoCG and exercise test
I 25.2 – previous myocardial infarction	Lack of cholesterol fractions testing, EchoCG and exercise test
I25.3 – cardiac aneurysm	Lack of cholesterol fractions testing, EchoCG and INR
I15 – secondary hypertension	Lack of consultation with an endocrinologist and a nephrologist, no hormonal and creatinine testing
I27 – primary pulmonary hypertension	Lack of pulmonary scintigraphy or pulmonary angiography
I31 – chronic pericarditis	Lack of tuberculosis examination
I38 endocarditis	Lack of hemoculture examination
I171 .4 – aneurysm of abdominal aorta	Lack of lipid profile and EchoCG

* According to the ESC guidelines, these tests should be reimbursed.

Discussion

One of the main faults of the principle and organization of the current state of health insurance in Bulgaria is that it stimulates health managers to mistakenly consider clinical paths an instrument for funding inpatient care. These mistakes urge doctors to use outdated and inadequate treatment methods, even where modern alternatives are available.

A study of AMI treatment in Pleven District based on data of the Regional Health Centre and the RHIF in 2008 revealed the facts presented in Figure 1 [6].

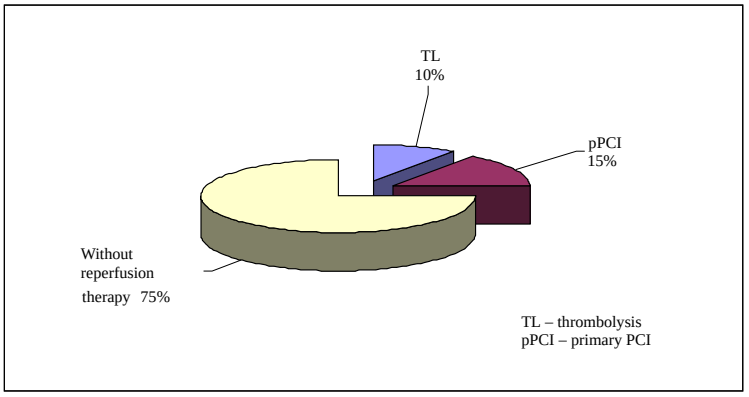

Figure 1. Treatment of 1015 cases of AMI in Pleven region, 2008 [6]

Pleven District was chosen as the study location, as it has all of the following three possibilities for infarction treatment within 30 minutes:

· pPCI - treatment through primary angioplasty - mortality rate up to 5%;

· TL - treatment through thrombolysis - mortality rate up to 14%;

· Without reperfusion therapy - mortality rate up to 25%.

The analysis of this data raises the following question: Why are 75% of patients with AMI treated by methods that cause the highest mortality rates, considering the fact that accessibility is not a restrictive factor? There is a single objective answer - health managers, in order to improve the financial results of the medical establishment they manage, try to treat

every patient, no matter whether they have and/or apply the most appropriate of therapies. This process is encouraged by NHIF as well, which signs contracts on the grounds of clinical paths for AMI treatment without reperfusion therapy in regions where primary angioplasty is absolutely accessible. Table 3 contains the prices for the respective treatment of AMI and the expected average mortality [4, 7].

Table 3. Prices of clinical paths for AMI treatment [7]

Method of AMI treatment	Price paid by NHIF	Mortality
Without reperfusion therapy	BGN 820	25%
With thrombolysis	BGN 2500	14%
With primary angioplasty	BGN 5250	5%

AMI Acute Myocardial Infarction

According to the Regional Health Centre - Pleven the data about in-hospital mortality from acute coronary syndrome for Pleven district for the first half of 2008 reveal a drop by 3.9% to 9.25%. The statistics of UniCardio Clinic Pleven shows that out of a total of 3,200 patients, 368 had ACS, for 11 of whom the outcome was fatal. This fact places the hospital among the leading clinics not only in Bulgaria, but in Europe in terms of in-hospital mortality from ACS of 2.99% [8].

UniCardio Clinic Pleven was established based on the principle of public private partnership between Medical University, Pleven and the Bulgarian Cardiac Institute. One year later, the partnership between UniCardio Clinic and Medical University Pleven has expanded to scientific and academic activities, apart from medical ones. The hospital was opened in September 2007. Apart from the expert assistance of the European Society of Cardiology, provided by its Vice-President Prof. P. Widimsky, the project marked a serious progress with the involvement of the task force of interventional cardiologists from the St. Anna University Hospital, Brno, Czech Republic. They contribute to the work of UniCardio Clinic under the guidance of Asst. Prof. L. Groch. The goal pursued then was to reduce ACS mortality in the Pleven region. Shortening the time to reperfusion is of major importance for the successful treatment of ACS.

Conclusion

In view of the statistics cited and the ESC guidelines, there is no need to provide further evidence that reperfusion therapy should be highly encouraged by the state. Healthcare officials need to reconsider their policies and urge reimbursement of such procedures by enriching the list of clinical paths in the next annual National Framework Agreement of the Republic of Bulgaria. Clinical paths in Bulgaria are used not as a method for quality assessment, but as an instrument to fund hospitals. The social consequences of this fact are severe restriction of accessibility to quality health care and an increase of mortality rates. Inadequacy in medical algorithms of clinical paths further impede accessibility and stimulate doctors to misuse documentation and funds. NHIF should use the established system of clinical paths both for quality control and for pursuing responsible health policy, to the benefit of society and to decrease mortality and disability rates, as well as improve the life quality of insured citizens. The only way to do this is by means of strict adherence to ESC guidelines - for AMI treatment of STEMI and NSTEMI patients, for heart failure, for PCIs, etc. Otherwise, Bulgaria is at risk to become not one of the countries with highest death rates, but the one with highest mortality.

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