MIHAELA GAVRILA-ARDELEAN
"Aurel Vlaicu" University of Arad, Romania, ROMANIA

THE NEED FOR IMPROVED ADDRESSABILITY AND ACCESSIBILITY IN WEST ROMANIAN RURAL POPULATION WITH ACUTE CORONARY HEART DISEASE AT SPECIALIZED MEDICAL SERVICES TO REDUCE THE ECONOMIC COSTS OF HEALTH SERVICES

Abstract:

It is estimated that in the XXI century, coronary diseases will surpass contagious diseases, and will be the main cause for morbidity and specific mortality and are large consumers of health services, increasing the economic cost of their treatment. Cardiovascular diseases represent a major issue regarding public health in Romania and one of the main causes of economic consumption for health services, particularly in the western part of the country.
This paper analyzed and to achieve a forecast, until 2013 of: the population, the specific mortality and the number of the lost years as a consequence of cardiovascular pathology, in order to improve the management of health services in AMI, the identification of the sanitary education level and the patients who show great factors of cardiovascular risk, the logistics of ambulance assistance on case of coronary emergencies (acute myocardial infarction with an over variation of the ST segment, the introduction of the possibility of prehospital thrombolysis/of the percutaneous coronary intervention), for an efficient prophylaxis and therapy, reducing the specific indicators of AMI mortality and the social-professional reinstatement of the patient.
This study demonstrated as the acute myocardial infarction, AMI mortality has been reduced in the last few years on: better education of the population in terms of addressability in cardiovascular emergencies, awareness of symptoms and time of "golden time", addressability to health services, providing technical resources, economic and human resources specialist.

Keywords:

Cardiovascular diseases, coronary diseases, acute myocardial infarction (AMI), health services, sanitary education, economic consumption for health services, western part of the country.

JEL Classification: I19, I00, I29

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Mihaela Gavrilă-Ardelean, PhD,
"Aurel Vlaicu" University of Arad, Romania

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Problem statement

At the end of the last century more than half of the deaths from our country were the result of cardiovascular diseases, a quarter being the cause of acute myocardial infarction[1]. This situation that has been influenced by two causes. On the one hand, there is the different incidence of atherosclerosis and on the other hand, there is the efficiency of the treatment in the actual stage of cardiovascular diseases, especially in the stage of acute myocardial infarction (AMI) [2]. The acute AMI mortality has been reduced in the last few years as a result of the progress achieved in the emergency therapy – in the intensive coronary unities of therapy and in the modern reperfusion techniques[3].

[1] Gavrilă-Ardelean, M.F., (2008), *Social policies for health: health insurance, contributions to health services management,* University Publishing House "Aurel Vlaicu", Arad

[2] Braunwald E., Zipes D.P., Libby P., Bonnow R.O. (ed), (2005): *ST Elevation Myocardial Infarction: Pathology, Pathophysiology and Clinical Features; Management in Heart Disease, a Textbook of Cardiovascular Medicine,* W.B. Saunders Company, 7th ed. 46,47: 1141-1226

[3] Riviș, I., Drăgulescu, S.I., Gavrilescu, D., Burghina, D., Slovenscki, M., Popa, R., Mihalaș, M., Ciobotaru, G., Vasiluță, D., Domide, C., Tunea, O., Riviș, A., (2000): *The coronary reperfusion after using different thrombolytic agent in treatment of acute myocardial infarction,* 9th International Congress on Cardiovascular Pharmacotherapy; Salvador-Bahia, Brasil

Methodology:

This paper analyzed and to achieve a forecast, until 2013 of: the population, the specific mortality and the number of the lost years as a consequence of cardiovascular pathology, in order to improve the management of health services in AMI, the identification of the sanitary education level and the patients who show great factors of cardiovascular risk, the logistics of ambulance assistance on case of coronary emergencies (acute myocardial infarction with an over variation of the ST segment, the introduction of the possibility of prehospital thrombolysis/of the percutaneous coronary intervention), for an efficient prophylaxis and therapy, reducing the specific indicators of AMI mortality and the social-professional reinstatement of the patient.

The methods of research used for the epidemiological diseases, which are not contagious for the population study[4].

Results and discussions:

Taking into account these observations, I have started a wide evaluative research of: mobidity and specific mortality from acute coronary disease, acute myocardial infarction in those Arad county in the last decade and correlation with the number of lives saved by a prospective assessment for the next years, if is improve the education of patients that geographic area in order adresabilităţii and increase accessibility to specialized health services, and improve the management of health services in AMI, in Arad.

Table 1.

Addressability function of habitat

Habitat	Average time	Number
Rural	560.50	114
Urban	364.02	193
Total	436.98	307

Average time between onset of symptoms and hospitalization, in minutes, depending on habitat. Statistical significance according to habitat addressability is .000 which shows that the time interval between onset of symptoms and arrival at the hospital is higher for rural than for urban patients, indicating addressability and accessibility to more specialized medical services for the last group of patients.

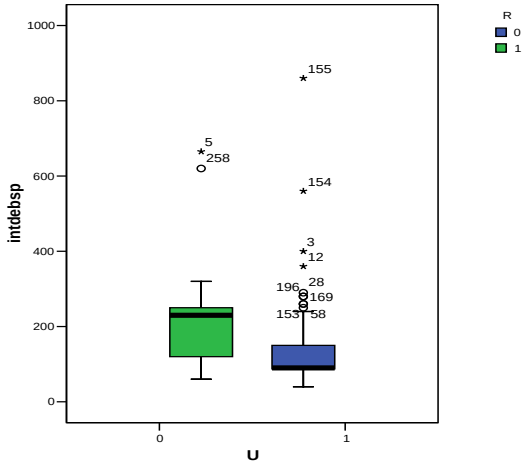

Figure 1. Time interval between the onset of AMI and hospital

[4] Gavrilă, A.M., Gavrilă, A.L., (2011), *Internal medicine and social element: courses notes*,Editura Mirton, Timişoara, p. 18-21

Results show the need for health policies for improving addressability, by increasing health education of the rural population and increased its accesibităţii specialized medical services.

The methods of research used for the epidemiological diseases, which are not contagious for the population study, have set up a relation between the operative of the primary intervention – the thrombolytic therapy, mortality – the success rate. The quantitative and qualitative data have been used as statistical units. Due to the fact that in the research of morbidity there is always difference between the evident, subjective, diagnosed, declared, recorded, known examination and the real level of the affection of the population. I have chosen to refer to the medium error calculation (the standard error), the application of the statistical significance tests and the establishment of the trust level, when it came to discuss the results.

The application of the thrombolytic treatment, as soon as possible, after the beginning of the symptoms, ensures a high efficiency and it offers the possibility of a normal coronary flow.

Conclusions:

The information and education of the citizens, especially of those with a coronary risk, in order to recognize the emergency and to address themselves to the medical services/call 112, with GPS, so that the beginning of the AMI symptoms – the call 112 to be reduced to 1 to 5 minutes, and the duration of the transport to hospital should take less than 8 minutes, in order to perform the thrombolysis in less than 30 minutes from the beginning of the acute myocardial infarction, reduces the economic costs related to treating these patients and save lives.

References:

1. Braunwald E., Zipes D.P., Libby P., Bonnow R.O. (ed), (2005): *ST Elevation Myocardial Infarction: Pathology, Pathophysiology and Clinical Features; Management in Heart Disease, a Textbook of Cardiovascular Medicine,* W.B. Saunders Company, 7th ed.,
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4. Riviş I., Dragulescu S.I., Gavrilescu D., Burghina D, Slovenscki M., Popa R., Mihalaş Minodora, Ciobotaru Gabriela, Vasiluţă Deliana, Domide C., Tunea Oana, Riviş A, (2000): *The coronary reperfusion after using different thrombolytic agent in treatment of acute myocardial infarction*, 9th International Congress on Cardiovascular Pharmacotherapy; Salvador-Bahia, Brasil.