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ORGANIZATIONAL APPROACH IN CARING FOR PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

Diana K. Ivanova, Galina S. Tchaneva

Medical Faculty, Sofia University “Saint Climent Ohridski”, Bulgaria

Abstract

Patients with acute myocardial infarction are hospitalized for monitoring and treatment. The organizational model of nursing care for these patients, including: emergency admission, intensive care, invasive surgery and treatment. Expert judgment is made on the model of nurses working in the cardiology clinic of University Hospital "Lozenges" - Sofia and the Department of Cardiology of Hospital - Vratsa. Opinions of nurses organizational model allows to improve the efficiency and quality of care for patients with acute myocardial infarction.

Key words: *organizational model, nursing care, acute myocardial infarction*

INTRODUCTION. Myocardial infarction may be a negligible event from a life-long chronic disease, it may even remain unnoticed but it may be also catastrophic event resulting in sudden death or severe hemodynamic failure. The term 'myocardial infarction' has great psychological and legal significance for the individual and the society. Prognosis after myocardial infarction is serious. Despite of the improved drug-assisted therapy and the intensive early treatment, in the recent years mortality in Bulgaria and globally tends to increase (Tomov 1999). This is due to the higher incidence of the occurring severe complications and the higher combined effect of risk factors.

The incidence of this disease also increases in the last years and poses a major social problem. Bulgaria ranks in first position by number of patients with infarction and these are mainly people at the age of 45 to 65 but it may affect also much younger people. It features early disablement and high mortality (Shipkovenska 2004).

One challenge for the nursing is the way by which nursing care is provided. The pressure for reduction of costs for care, for increasing the efficacy and for maintenance of high quality also has significant impact on the organization of nursing.

Care planning is a scientific approach to the work of nurses, which in the literature is known as "approach to nursing" or "process of nursing". It includes identification of the specific care, which a patient needs by analysing the patient’s status, the means for organization of care and interventions, performance of the activities and evaluation of the results. This approach is based on the existing theories of nursing and is implemented by adequate and efficient organization of care (.Tchaneva 2008).

Nursing care and particularly its efficacy and quality has essential role in the process of treatment. Improvement of the quality of care requires developing a care model to enable monitoring and assessment of the general status of patients, their physiological needs, monitoring and reporting of indicators, medical doctor's consultations and prescriptions. The elaborated nursing care plan includes nursing interventions, which depend on the model of care applied by the nurse. Interventions in the plan correspond to the degree of dependence of the patient and the disease status. The nature of planning consists in determination of the goals for every problem of the patient, determination of the nature and volume of nursing interventions required to achieve the goals, determination of the duration of nursing care.

Efficient nursing care is an important tool for achievement of the goals of the healthcare organization, for high productivity and satisfaction of nurses from their activity. The nursing care model reflects the philosophy of the organization and depends on its structure, resource supply and allocation of the nursing staff and on the number and characteristics of patients.

The purpose of this study is to develop organizational nursing model, which priority is establishment of a modern organization of nursing care for patients in life-threatening condition as is the condition of a patient diagnosed with acute myocardial infarction. The organizational model includes: emergency hospitalization, intensive treatment, invasive or operative treatment and in-patient treatment to ensure high quality care for patients.

MATERIAL AND METHODS. The developed organizational model of nursing care for patients with acute myocardial infarction was submitted for an expert assessment by a team of 15 nurses working in the Cardiology Clinic with the University Hospital Lozenets - Sofia (10) and the Cardiology Ward of the Multi-field Hospital for Active Treatment - Vratsa - (10). The study was conducted in 2013.

RESULTS AND DISCUSSIONS. On one hand the organization of nursing care should meet the specificity and the needs of the patient and on the other hand - it should create conditions for the staff to render high quality and efficient care. The modern in-patient treatment requires specific medical technologies and quality of used medical consumables and materials but the good results definitely depend on the created organization and the sequence of procedures in the overall treatment and diagnostic process.

Based on the achievements of the medical science a recommended strategy for acute coronary syndrome has been developed, which includes the following key elements (Hatchett & Thompson 2002):

- clinical suspicion of acute coronary syndrome; Physical examination; ECG; blood samples
- during persistent ST segment elevation follows thrombolysis or angioplasty
- no persistent ST segment elevation follows medication with Aspirin, β- blockers, Heparin
- elevated troponin; recurrent ischaemia follows coronary angiography
- normal troponin on admission and 12h later – stress test before or after dischange

Nursing care for patients with acute myocardial infarction must follow on one hand the standards governing the nursing procedures and on the other hand the planned care must be consistent with the individual needs of the patients. Nursing interventions shall further depend on the care model, which is applied in the relevant hospital structure.

Intensive care and monitoring of patients after their hospitalization are followed by a nursing care plan for the pre-operative and post-operative period. The nursing care plan includes nursing interventions, which the nurse shall perform in order to solve the problems of the particular patient. Nursing interventions must be based on scientific principles, they must be specific and clear so that every nurse may perform one action or another. Furthermore they need to be real within the allocated time as well as consistent with the professional qualification of the nurse.

The nature of planning consists in determination of the goals for every problem of the patient, determination of the nature and volume of nursing interventions required to achieve the goals, as well as determination of the duration of nursing intervention.

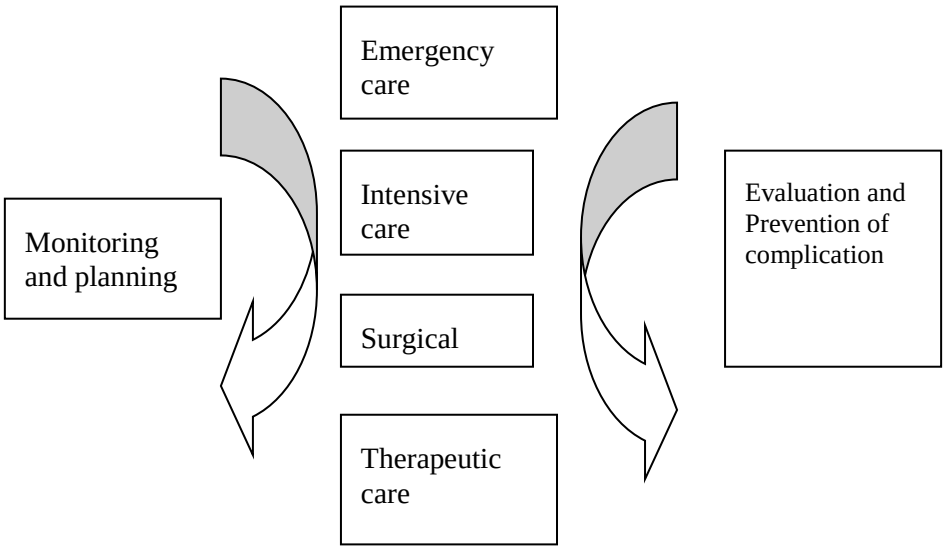


Fig. 1. Scheme of the organizational model of care

The healthcare management theory offers different care models but the most appropriate for patients with acute myocardial infarction is the model known as "Patient-centric nursing care"(Grancharova 2005). In this model

the nursing care is focused on the patient's needs. Traditionally, hospitals are organized in wards in which patients are accommodated to receive treatment. Patients with similar needs are accommodated in same structures, for example – intensive care, surgery or therapeutic sectors. Within this organization all tasks are shared between the team members who receive additional training so that they may provide services depending on the clinical area.

Based on the presented strategy for acute coronary syndrome and the need of change in the organization of the in-patient care for patients with acute myocardial infarction, we have developed nursing care model, which aims to ensure the following key priorities in the care for these patients: emergency care, intensive care, invasive or operative treatment and therapeutic treatment.

The organizational model aims to create modern and efficient organization of care by which nurses are able to monitor continuously the patients, to assess the needs of special nursing care and care planning depending on the development of coronary syndrome.

Organization of nursing shall enable nurses to render adequate care for the patient depending on their general status and the tests and treatments prescribed by the attending physician. This requires that nurses are able to perform both their autonomous functions and those assigned by the medical doctors in accordance with the emergency, intensity and the preparation of the patient for the invasive /or operative/ procedures and therapeutic treatment.

The short period of patient's stay in the hospital certainly requires more efficient use of the time by the nursing staff for particular care for the patient, which may be realized through the modern information systems enabling fast entry of information about the patient, its storing, processing and sending to other specialists.

Provision of high quality healthcare in the modern hospitals is impossible without the introduction of new methods and approaches for care, for example development of a nursing care plan based on the individual patient's needs.

For the purpose of identifying the positives and negatives of the developed organizational model, it was presented to experts - nurses, who expressed their opinion.

The expert group was able to examine the care model for patients with acute myocardial infarction. Patients with acute myocardial infarction are treated on in-patient basis according to specific clinical pathway, which regulates the professional conduct of the medical doctor and the relevant medical activities, while the professional conduct of the nurses and the specificity of nursing care are not sufficiently regulated.

With a view to the main phases and priorities concerning care for these patients, all experts definitely consider that the presented model incorporates the main phases of emergency care, intensive care, operative treatment and in-patient treatment. The great variety of care presumes a very good professional qualification of nurses. The care model for patients with acute myocardial infarction definitely requires new attitude on the part of the nurses because with the traditional organization they specialize only in one field. Nurses should be prepared to perform all activities and care in each phase of the in-patient treatment of these patients.

The experts consider that the developed organizational model presents clearly and precisely the guidelines for in-patient care for patients. The clear and precise presentation of care is required due to the high professional liability, which is assumed by the nurses upon monitoring and rendering care for patients with acute myocardial infarction. Monitoring of patients ensures ongoing tracking of the key indicators for cardiac activity but concurrently the nurse has the main task to monitor and assess their general status.

For us it was important to learn the opinion of the experts concerning the opportunities, which the developed model provides for planning and reporting of care for patients with acute myocardial infarction. The existing organization of care is not focused on planning and reporting of the results of the care, which on its part doesn't provide opportunity to assess the professional engagement of the nurse and to make objective assessment of the care. All experts consider that this model allows establishment of organization, which enables care planning, their registration and respectively - evaluation. The creation of organizational model, which reflects these key elements is a milestone in the modern model of management, which ensures professional provision of care for patients. This may also ensure reduced number of omissions and errors due to overloading of nurses with emergency and intensive care. Objective evaluation of care is not possible unless there are conditions for clear and precise planning of nursing care. Every phase of the in-patient stay of patients with acute myocardial infarction is substantially different with regard to the required care and this determines organization of care, which guarantees their continuity and adequacy.

The opinion of experts about the care efficiency is of material significance for the introduction of change in the care organization. All experts consider that the introduction of this care model will increase substantially the

efficiency of care provided by nurses. The establishment of an efficient organization of care in the modern hospitals is a very important problem of the in-patient management. The efficient organization is a guarantee for the achievement of good results through maximum use of the available resources. The number of nurses is quite limited in the recent years even in the emergency and intensive care units and therefore it is important that the model allows appropriate planning and allocation of nurses. The existing organization does not allow determination of the workload of the nurses and calculation of the volume of performed activities and provided care. This is a precondition for inefficient use of qualified nurses because tasks are assigned to them and they perform activities, which do not correspond to their competences and are not related with the care for patients.

The experts were asked about the opportunity to enhance and develop the hospital information system with a software product, which reflects the developed care model. All exerts consider that if the hospital information system is enhances with a specially developed software for care for patients with acute myocardial infarction, this will materially change the quality of care for these patients, as well as the workload of nurses. Information systems are still not used efficiently enough for organization of nursing, on one hand because not all nurses have sufficient level of computer literacy and on the other hand due to the lack of specially developed software to facilitate their work.

Introduction of nursing care approach, which includes planning, performance and evaluation of care is impossible if not supported by modern information systems. All hospitals have hospital software that may be continuously expanded. Entry of information about care for patients in the information system may be possibly used by different users and even by the patients. The developed nursing care plan shall be accessible to patients too and they shall be prepared and informed about the nursing care plan for the time of their in-patient stay.

Conclusions. During this decade thanks to the early hospitalization and thrombolytic therapy of patients with AMI, decrease in early mortality is reported. This is also possible thanks to the efficient drug therapy as well as the introduction of new interventional methods for treatment of patients with coronary diseases. Patients with myocardial infarction are patients with chronic disease with specific care needs.

The developed nursing care model for patients with acute myocardial infarction incorporates the key phases of emergency care, intensive care, operative treatment and in-patient treatment, the model enables planning and reporting of care for patients with acute myocardial infarction in each phase of their in-patient stay. The introduction of software based on the care model substantially will change the quality of care for these patients.

Nevertheless the modern hospitals offer to the patients expensive medical activities such as the methods of the invasive cardiology, it must be noted that the organization of nursing hasn't undergone the relevant changes to be adequate to the new requirements. The efficient care model requires care planning, care provision and recording of results. All experts share the opinion that the model introduction will allow that care for patients with acute myocardial infarction is clearly planned, performed and reported. Only by this model it will be possible to store information about the individual care for each patient.

The modern nursing practice is based on theoretical conceptual models, which aim to outline the limits of the autonomous nursing profession upon providing specific nursing care such as the care for patients with acute myocardial infarction. The professional liability of nurses must be bound with particular organization and mechanisms in order to guarantee specific quality of care in the hospital structures or in different directions such as intensive care. It features emergency, high load and making professional decisions requiring efficient organization and adequate management. Intensive care for patients with acute myocardial infarction must be provided on the basis of individual approach to care and individual clinical protocol in order to ensure professional performance of medical prescriptions and therapy. The modern treatment of acute myocardial infarction certainly requires introduction of a care model that meets the individual needs of the patient consistent with the introduction of scientific approaches and methods for realization of nursing care.

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