DEVELOPMENT AND IMPROVEMENT OF QUALITY CHARACTERISTICS OF MEDICAL CARE

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Summary

The aim: to investigate changes in the interpretation of the content of the characteristics of the quality of medical care and medical service; to propose practical approaches to the formation of modern quality criteria and indicators in health care institutions.

Materials and methods: sources of scientific literature from the databases PubMed, NICE, according to the selected research topic, were selected as research materials; methods: bibliosemantic; analysis and generalization of the obtained data.

Results. Classic characteristics of quality – safety, quality of resources, quality of the medical care process, treatment outcome, patient satisfaction, timeliness, fairness, efficiency – are reviewed over time and acquire additional or radically changed content. The selection of relevant quality characteristics is important for health care managers to define quality criteria and indicators according to the requirements of the local context. In addition to the traditional components of infectious safety and the safety of medical interventions, the safety criterion is today complemented by the components of radiation, environmental, epidemic, physical, informational, and terrorist safety. Safety also refers to the ability of professionals to avoid, prevent and reduce harmful interventions or risks to themselves and the environment. Patient-centeredness must include respect for the relationship not only between physician and patient, but also between the patient and all providers of health care for that patient. Effective, safe health care is reflected in a culture of excellence that includes collaboration, communication, compassion, competence, advocacy, respect, accountability and reliability. The most relevant criteria and indicators of the quality of medical care must be developed in accordance with the structure of innovative organizational models of academic health care centers, where scientific, clinical and educational activities are integrated. This requires the formation of end-to-end quality criteria and indicators that cover all activities of academic centers.

Conclusions: criteria and indicators of the quality of medical care and medical service are constantly supplemented with new components, in accordance with the achievements of medical science and practice. The transformation of the organizational structures of medical care into academic centers, where scientific and educational activities are added to traditional medical practice, requires the development and introduction of end-to-end criteria for the quality of medical care.

Key words: quality criteria and indicators; quality measurement; healthcare institutions; patients

INTRODUCTION

The criteria for the quality of medical care and medical service, which have long become common and traditional, have been adopted by the world scientific community. However, opinions regarding fundamental differences in the meaning of the concept of the quality of medical care and its measurement in different countries of the world are being expressed more and more often [1]. This is due to the tendency to measure a large number of different quality parameters in national health care systems. For example, in the United States, according to the National Report on the Quality and Disparity of Healthcare in the United States, 168 quality criteria were monitored in 2014, in Great Britain 79 indicators were measured in 2017, and today their number is measured in the thousands [2, 3].
At the same time, the actual quality indicators of the industry level are formed on the basis of retrospective data of direct providers of medical services — health care institutions — and their users. That is why it is important to choose an appropriate number of indicators that will allow measuring the level of achievement of the planned goals. It is necessary to avoid indicators that are insignificant in terms of content [4].

Such approaches will correspond to the validity of the content of quality criteria and indicators and can be used as a theoretical basis for the balance of their sets for conducting quality monitoring and auditing and obtaining reliable information for making management decisions. However, domestic approaches to the formation of sets of quality criteria and indicators for health care institutions need to be improved in connection with the processes of changes in the field of health care and external threats, which is the relevance of the study.

THE AIM: to investigate changes in the interpretation of the content of criteria and indicators of the quality of medical care and medical service; justify the use of current quality criteria and indicators in health care institutions.

MATERIALS AND METHODS

Scientific literature sources located in PubMed, NICE databases, according to the selected research topic, were selected as research materials; methods: bibliosemantic; analysis and generalization of the obtained data.

RESULTS

Quality criteria and indicators are the basis for monitoring and evaluating the quality of medical care and medical services. This ensures the collection and formation of reliable factual information about the state of affairs directly in the places where medical assistance is provided. Healthcare managers can make management decisions aimed at improving the performance of healthcare providers and patient health outcomes thanks to such information [5].

The areas of quality improvement may be: measurement of the quality of medical care for certain contingents of patients; setting priorities for quality improvement in accordance with resource provision; use in local information systems for the purpose of assessing the dynamics of local changes and comparison with national data, etc. [6].

The results of the study proved that the concept of quality remains decisive for the formation of a set of criteria and indicators of the quality of medical care and medical service, and is regularly analyzed in accordance with the development and improvement of both the concept of quality and health care systems in different historical periods.

One of the first measurable quality criteria was the safety of medical care. It was introduced by the English doctor Thomas Sydenham in 1860 and transformed from the saying «First, do no harm» [7].

Avedis Donabedian was a classic of teaching about the system-process approach to quality management. He systematized the quality criteria by elements: structures, that is, resources, their quality should be «transferred» to the quality of medical care; process, that is, quality criteria of medical technologies (prevention, diagnosis, treatment); result, i.e., criteria for measuring the dynamics of the patient’s state of health after completion of treatment or its stage [8, 9].

Along with structural, process and performance indicators, the countries of the world use the grouping of quality criteria and indicators according to other characteristics: administrative, clinical and those reported by patients [10].

John Ovretveit in 1992 substantiated the emphasis for quality measurement on the following three criteria: the quality of the medical service that meets the patient’s expectations; provision of medical care in accordance with established professional instructions, procedures and methods; the most rational use of available resources [11].

In 2001, the US Institute of Medicine proposed six components of the quality of medical care: 1) safety; 2) timeliness; 3) justice; 4) efficiency; 5) effectiveness; 6) patient orientation [12].

In 2010, OECD experts combined the known criteria for the quality of medical care into three main groups: efficiency, safety and patient orientation. This made it possible to measure and compare quality indicators in different countries [13].

Eleven quality criteria are proposed by the Standard for Quality Management Systems for the Healthcare Sector (2015), adapted and recommended for use in Ukraine (2016): 1) appropriate, correct care in relation to the patient’s medical needs; 2) suitability, that is, usefulness, ability to do, perform something (applies to the service provider); 3) continuity; 4) efficiency; 5) effectiveness; 6) impartiality; 7) use of scientific evidence/knowledge based on medical practice; 8) patient-centeredness, including physical, psychological and social integrity; 9) involving the patient; 10) patient safety; 11) timeliness/availability. The authors and experts recommend focusing on these criteria for the development of a set of planned quality indicators and quality improvement measures in the healthcare institution [14, 15].

In 2011, for the first time, 33 quality indicators for primary, secondary, tertiary and emergency medical care were introduced in Ukraine, approved by the order of the Ministry of Health [16].
In the future, methodological approaches to the formation of quality criteria and indicators were developed in a number of other normative documents, where more attention was paid to clinical indicators of the quality of medical care.

The addition of this block of indicators took place as the base of unified clinical protocols for medical care was formed for socially significant diseases (hypertensive disease, diabetes, chronic obstructive pulmonary disease) and other pathologies. In general, since 2018, according to research [17], parallel processes have been taking place in the domestic health care system: clinical quality indicators are approved as part of industry standards in the field of health care; indicators of medical care volumes at the industry level are collected and processed by the Center for Medical Statistics of the Ministry of Health of Ukraine; The National Health Service of Ukraine forms special indicators that are only partially relevant to clinical quality indicators and generalizes them for the health care sector.

DISCUSSION

Scientific evidence shows that such a well-known quality criterion as safety remains a daily problem for any health care system. New threats arise due to the aging of the population, new treatment methods and technologies [18]. This problem is exacerbated during the period of military events taking place in our country and other countries of the world. Today, this criterion to the traditional components of infectious safety and safety of medical interventions is supplemented by the criteria of radiation, ecological, epidemic, physical, informational safety, and safety due to the threat of terrorist acts.

Therefore, even one criterion of the quality of medical care during disaggregation is transformed into a criterion with many components, and the task is that the management of health care institutions and employees choose those criteria that are most relevant for the local context.

The well-known component models of A. Donabedian’s quality management – structure, process and result — remain in the field of view of scientists and practitioners as classic and at the same time relevant, despite the various models developed later. The model of A. Donabedian allows to systematize the criteria and indicators of the quality of medical care, form them into appropriate blocks and thus facilitate their use in the feedback system of any health care institution [19].

A balanced approach to evaluating all characteristics of the quality of medical care proposed by the US Institute of Medicine (2001) (safety; timeliness; equity; efficiency; effectiveness; patient-centeredness) has its continuation in modern developments. The authors [20] advise using these criteria with the specification of the patient-oriented component. It must include respect for the relationship not only between doctor and patient, but also between the patient and all providers of health care for that patient. Effective, safe medical care must be reflected in a culture of excellence that includes collaboration, communication, compassion, competence, advocacy, respect, responsibility, and reliability [21].

John Ovretveit’s views on the three dimensions of quality from the perspective of professionals, the patient and management are refined in the current scientific literature and weigh these dimensions quite differently for clients, health care providers, managers, politicians and payers. Therefore, quality criteria important for each group should be a priority for managers and practitioners [22].

The interpretation of the content of quality criteria and indicators by OECD experts has also been updated in recent studies: efficiency is understood as the optimal use of input resources to achieve maximum effectiveness; clinical effectiveness is the compliance and competence of staff to ensure maximum benefit for all patients; patient-centeredness means that patients are at the center of care and service delivery, according to their feedback; safety concerns both patients and professionals, that is, the ability to avoid, prevent and reduce harmful interventions or risks to all participants in the healthcare process and to the environment [23].

The most relevant studies propose to consider the criteria and indicators of the quality of medical care in the structure of innovative organizational models of academic health care centers. Such models are designed to integrate research, clinical, and educational activities based on evidence-based decision-making in these areas and, as a result, optimal client care. This requires other approaches to consideration and formation of quality criteria and indicators of such academic centers. The specified areas are implemented in cross-functional activities or teamwork and include: joint construction of the purpose and goals of the activity, joint learning, joint production and use of knowledge and its application to satisfy patient requests [24].

The organizational models of new academic health centers are designed not only to serve their local community, but also to provide leadership in clinical care and innovation for their region and country. Also, their purpose will be training of the best providers of medical services and medical research of national and regional significance, which will require an appropriate assessment at the given level of their functioning [25]. Special attention is paid to the interaction of scientists and academic centers, which will contribute to the unification of medical science, informatics, interested parties and the formation of a culture for continuous improvement and innovation [26, 27].
CONCLUSIONS

Criteria and indicators of the quality of medical care and medical service are constantly supplemented with new components, in accordance with the achievements of medical science and practice. The transformation of the organizational structures of medical care into academic centers, where scientific and educational activities are added to traditional medical practice, requires the development and introduction of end-to-end criteria for the quality of medical care.

Prospects for further research are to improve the list and content of criteria and indicators of the quality of medical care and medical care for patients, which are provided by multidisciplinary teams in multidisciplinary health care institutions, and institutions that already function in Ukraine according to the model of an academic center (university clinic).

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COMPLIANCE WITH ETHICAL REQUIREMENTS

Ethical approval: not applicable (no animals or human subjects were used in this study).

LITERATURE


REFERENCES


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Резюме

РОЗВИТОК І ВДОСКОНАЛЕННЯ ХАРАКТЕРИСТИК ЯКОСТІ МЕДИЧНОЇ ДОПОМОГИ

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Мета: дослідити зміни у трактуванні змісту характеристик якості медичної допомоги та медичного обслуговування; запропонувати практичні підходи до формування сучасних критеріїв та показників якості в закладах охорони здоров’я.

Матеріали та методи: використано джерела наукової літератури з баз даних PubMed, NICE, відповідно до обраної теми дослідження; методи: бібліосемантичний; аналіз та узагальнення отриманих даних.

Результати: Класичні характеристики якості – безпека, якість ресурсів, якість процесу надання медичної допомоги, результат лікування, задоволеність пацієнтів, своєчасність, справедливість, ефективність – з часом переглядаються та набувають додаткового або кардинально зміненого змісту. Вибір відповідних характеристик якості є важливим для керівників охорони здоров’я, щоб визначити критерії та показники якості відповідно до вимог місцевого контексту. Окрім традиційних компонентів інфекційної безпеки та безпеки медичних утручань, критерій безпеки сьогодні доповнюється компонентами радіаційної, епідемічної, фізичної, інформаційної та терористичної безпеки. Безпека також стосується здатності професіоналів уникати, запобігати та зменшувати шкідливі втручання або ризики для них самих та для навколишнього середовища. Орієнтація на пацієнта повинна включати вагіття до відносин не тільки між лікарем і пацієнтом, але також між пацієнтом і всіма постачальниками медичних послуг для цього пацієнта. Ефективне, безпечне медичне обслуговування відображається в культурі досконалості, яка включає співпрацю, спілкування, компетентність, прозорість, повагу, підзвітність і надійність. Найактуальніші критерії та показники якості медичної допомоги необхідно розробляти відповідно до структури інноваційних організаційних моделей академічних центрів охорони здоров’я, де інтегрована наукова, клінічна та освітня діяльність. Це потребує формування наскрізних критеріїв та показників якості, які охоплюють усі види діяльності академічних центрів.

Висновки: критерії та показники якості медичної допомоги та медичного обслуговування постійно доповнюються новими складовими, відповідно до досягнень медичної науки та практики. Трансформація організаційних структур надання медичної допомоги в академічні центри, додатково традиційної медичної практики додається наукова та освітня діяльність, потребує розробки та запровадження наскрізних критеріїв якості медичної допомоги.

Ключові слова: критерії та індикатори якості; вимірювання якості; заклади охорони здоров’я; пацієнти