

ACTUAL PROBLEMS OF MEDICAL EVACUATION АКТУАЛЬНЫЕ ПРОБЛЕМЫ МЕДИЦИНСКОЙ ЭВАКУАЦИИ

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РЕЗУЛЬТАТЫ ИСПОЛЬЗОВАНИЯ ПРАКТИЧЕСКИХ РЕКОМЕНДАЦИЙ ПО ОРГАНИЗАЦИИ ВНУТРЕННЕГО КОНТРОЛЯ КАЧЕСТВА И БЕЗОПАСНОСТИ МЕДИЦИНСКОЙ ДЕЯТЕЛЬНОСТИ ВНЕ МЕДИЦИНСКОЙ ОРГАНИЗАЦИИ

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Резюме. Цель исследования – оценить результаты практического применения критериев контроля качества и безопасности медицинской деятельности при оказании скорой, в том числе скорой специализированной, медицинской помощи (СМП) и проведении медицинской эвакуации.

Материалы и методы исследования. Проанализированы результаты лечения 763 пациентов, поступивших в госпиталь по неотложным показаниям в период с сентября 2021 г. по сентябрь 2022 г. На основании медицинских документов (историй болезни) изучалась работа общепрофильных врачебных бригад госпиталя по оказанию скорой медицинской помощи: 451 пациенту медицинская помощь была оказана в режиме повседневной деятельности; 312 – в режиме чрезвычайной ситуации (ЧС).

При проведении исследования использовались методы экспертной оценки и сравнительного анализа. В качестве экспертов были привлечены 30 врачей, имевших высшую врачебную категорию по специальности «организация здравоохранения и общественное здоровье» и стаж работы не менее 5 лет.

С целью проверки достаточности критериев (показателей) контроля качества оказания медицинской помощи авторами была разработана специальная анкета, в которой экспертам предлагалось оценить по 10-балльной шкале значимость каждого показателя и их достаточность для полного описания всех возможных клинических ситуаций. Результаты анкетирования оценивали с помощью статистического анализа с использованием возможностей таблиц Microsoft Excel.

Результаты исследования и их анализ. Результаты исследования показали, что наиболее значимым критерием контроля качества выездных форм работ в догоспитальном и госпитальном периодах является своевременность проведения медицинской эвакуации. Они также показали необходимость включения дополнительных показателей для оценки пациентов с особо опасными инфекциями в Предложения (практические рекомендации) по организации внутреннего контроля качества и безопасности медицинской деятельности вне медицинской организации.

Ключевые слова: выездные формы работы, контроль качества и безопасности медицинской деятельности, медицинская деятельность вне медицинской организации, медицинская эвакуация, скорая медицинская помощь, скорая специализированная медицинская помощь

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RESULTS OF THE USE OF PRACTICAL RECOMMENDATIONS ON THE ORGANIZATION OF INTERNAL QUALITY CONTROL AND SAFETY OF MEDICAL ACTIVITY OUTSIDE A MEDICAL ORGANIZATION

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Summary. *The aim of the study was to assess the results of application of the criteria for controlling the quality and safety of medical activity in the provision of emergency, including specialized emergency, medical care and medical evacuation.*

Materials and research methods. *The results of treatment of 763 emergency patients admitted to the hospital from September 2021 to September 2022 were analyzed. The work of general medical teams of the hospital in rendering emergency medical aid was studied based on medical documents (case histories): 451 patients received medical care during routine activities; 312 patients received medical care within an emergency situation.*

During the study, methods of expert review and comparative analysis were used. Thirty physicians with the highest medical category in the specialty "organization of health care and public health" and with work experience of not less than 5 years were involved as experts.

In order to check sufficiency of criteria for quality control of medical care, the authors developed a special questionnaire, in which experts were asked to assess on a 10-point scale the significance of each indicator and their sufficiency for a complete description of all possible clinical situations.

The results were assessed by statistical analysis using the capabilities of Microsoft Excel tables.

Study results and their analysis. *The results of the study showed that the most significant criterion of quality control of field forms of work in pre-hospital and hospital periods is the timeliness of medical evacuation, as well as the need to include additional indicators to assess patients with especially dangerous infections in the practical recommendations for the organization of internal quality control and safety of medical activity outside a medical organization.*

Keywords: *field forms of work, emergency medical care, emergency specialized medical care, medical activity outside a medical organization, medical evacuation, quality and safety control of medical activity*

Conflict of interest. *The authors declare no conflict of interest*

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Introduction

In the world practice of health care the concept of "quality" is complemented by the concept of "safety of medical activity". This process is reflected in the technical reports of the World Health Organization (WHO) on key problems in the area of the safety of medical care, the introduction of international standards ISO 9000 series "Quality Management Systems" in the field of health care, etc.

Obligatory application of clinical recommendations and empowerment of the Russian Ministry of Health to establish requirements for organization and implementation of internal control of quality and safety of medical activities are regulated by the Federal Law "On Fundamentals of Health Care in the Russian Federation" from November 21, 2011 N°323-FZ [1].

When implementing the requirements of Order No. 785n of the Russian Ministry of Health "On Approval of Requirements for Organizing and Conducting Internal Control of Quality and Safety of Medical Activity" dated July 31, 2020, both practicing physicians and heads of medical organizations face difficulties when controlling the quality and safety of emergency medical care – EMC [2].

New approaches to the formation and functioning of the system of internal quality and safety control in medical treat-

ment organizations were approved in the Practical Recommendations on the organization of internal control of the quality and safety of medical activity outside a medical organization (hereinafter – Recommendations) in 2021. [3].

The outreach forms of work defined by these Recommendations include: provision of emergency, including specialized emergency, medical care outside the hospital; medical evacuation by various types of transport; work of emergency response teams, mobile medical units, field hospitals, route medical stations, evacuation receptions (near-airport, near-rail) in the emergency zone 1 [4].

These normative legal documents do not reflect all the features of internal control of quality and safety of medical activity outside a medical organization, which requires further comprehensive study.

The aim of the study is to assess the results of the practical application of the criteria of quality and safety control of medical activity in the provision of emergency, including specialized emergency, medical care and medical evacuation.

¹ On Approval of the Procedure for Providing Emergency, including Specialized Emergency Medical Care: Order of the Ministry of Health of Russia of June 20, 2013 No. 388n

Materials and methods. There were analyzed the results of treatment of 763 patients admitted to the hospital on emergency indications from September 2021 till September 2022. The work of general medical teams of the hospital in rendering emergency medical aid was studied based on medical documents (case histories): 451 patients received medical care during routine activities; 312 patients received medical care during emergencies.

In the course of the study, methods of expert evaluation and comparative analysis were used. The experts were 30 physicians, who had the highest medical category in the specialty "organization of health care and public health" and work experience of not less than 5 years. The work of medical teams at the stage of providing medical care outside the medical organization and at the stage of the patient's stay in the admission department of the hospital was evaluated.

In order to check the sufficiency of criteria (indicators) of quality control of medical care, specified in the Recommendations, the authors developed a special questionnaire, in which experts were asked to assess on a 10-point scale the significance of each indicator and their sufficiency for a complete description of all possible clinical situations, which the expert encounters when assessing the quality and safety of medical activity. On this scale: more than 8 points - important; 4 to 8 - very important; 1 to 4 - not important; 0 to 1 point - not important. The experts' opinions were evaluated at each of the two stages of the study.

The data were evaluated by statistical analysis using the capabilities of Microsoft Excel tables.

Results of the study and their analysis. The analysis of the results of the significance of the criteria for assessing the performance of medical teams under conditions of daily activities and in emergency conditions in the pre-hospital period is presented in Table 1.

The analysis of the results of significance of the criteria for assessing the performance of medical teams under conditions of daily activities in the hospital period is presented in Table 2.

It was determined that the most significant criterion of quality control of medical evacuations both in pre-hospital and hospital conditions is the timeliness of medical evacuation.

Discussion

In modern scientific medical literature there are sporadic works devoted to the issues of quality control and safety of medical activity outside a medical organization, which is associated with the inclusion of this concept in the Federal Law of November 21, 2011 №323-FZ only in 2018. Our study has shown that the criteria proposed in the Recommendations are important for an objective assessment of the quality of medical care provided to patients both outside the medical organization and in the hospital period.

However, the criteria specified in the Recommendations do not take into account the situations arising when patients with suspected particularly dangerous infections appear, including in the mode of emergency. Indicators for assessing

Таблица 1/ Table No. 1

Значимость критериев контроля качества выездных форм работы в догоспитальном периоде, баллы

The most significant positions of criteria for quality control of outreach forms of work in the prehospital period, points

| Место Place | Позиция / Position | Режим повседневной деятельности Daily activities mode | | Режим чрезвычайной ситуации Emergency mode | |
|-------------|--|---|--|--|--|
| | | среднее к-во баллов average score | станд. отклонение, σ standard deviation, σ | среднее к-во баллов average score | станд. отклонение, σ standard deviation, σ |
| 1-е | Своевременность проведения медицинской эвакуации - МЭ / Timeliness of medical evacuation | 4,40 | 0,87 | 4,56 | 1,00 |
| 2-е | Организация МЭ / Organisation of medical evacuation | 4,32 | 0,92 | 4,46 | 0,99 |
| 3-е | Набор мед. оборудования, оснащение / Set of medical equipment | 4,26 | 1,07 | 4,26 | 1,02 |
| 4-е | Защита мед. персонала при МЭ / Protection of medical personnel during medical evacuation | 4,21 | 0,89 | 4,35 | 1,15 |
| 5-е | Маршрутизация МЭ / Medical evacuation routing | 4,23 | 1,13 | 4,25 | 1,14 |

Таблица 2/ Table No. 2

Значимость критериев контроля качества выездных форм работы в госпитальном периоде, баллы

The most significant positions of criteria for quality control of outreach forms of work in the hospital period, points

| Место Place | Позиция / Position | Режим повседневной деятельности Daily activities mode | | Режим чрезвычайной ситуации Emergency mode | |
|-------------|--|---|--|--|--|
| | | среднее к-во баллов average score | станд. отклонение, σ standard deviation, σ | среднее к-во баллов average score | станд. отклонение, σ standard deviation, σ |
| 1-е | Своевременность проведения медицинской эвакуации - МЭ / Timeliness of medical evacuation | 3,40 | 0,88 | 4,58 | 1,00 |
| 2-е | Организация МЭ / Organisation of medical evacuation | 3,32 | 0,91 | 4,36 | 0,99 |
| 3-е | Набор мед. оборудования, оснащение / Set of medical equipment | 3,26 | 1,06 | 4,16 | 1,02 |
| 4-е | Защита мед. персонала при МЭ / Protection of medical personnel during medical evacuation | 3,21 | 0,88 | 4,15 | 1,15 |
| 5-е | Маршрутизация МЭ / Medical evacuation routing | 3,23 | 1,12 | 4,15 | 1,14 |

Показатели оценки качества оказания медицинской помощи пациентам с ООИ, баллы
 Indicators for assessing the quality of medical care for patients with especially dangerous infections, points

| № пп / No. | Показатель / Indicator | Режим повседневной деятельности Daily activities mode | | Режим чрезвычайной ситуации и массового поступления пациентов Emergency mode and mass influx of patients | |
|------------|--|--|--|---|--|
| | | догоспитальный период prehospital period | госпитальный период hospital period | догоспитальный период prehospital period | госпитальный период hospital period |
| 1. | Наличие алгоритмов по вопросам идентификации у пациентов с особо опасными инфекциями –ООИ / Availability of algorithms for identification in patients with - OOI | 3 | 2 | 9 | 9 |
| 2. | Наличие системы маркировки у пациентов с особо опасными инфекциями / Availability of a labeling system for patients with especially dangerous infections | 2 | 2 | 9 | 9 |
| 3. | Наличие укладки ООИ / The presence of laying OOI | 3 | 2 | 9 | 9 |
| 4. | Наличие транспорта с применением транспортировочного изолирующего бокса (ТИБ) / Availability of transport using a transport insulating box | 2 | 2 | 9 | 9 |

the quality and safety of medical activities in this case have not been developed so far [5, 6]. The pandemic of a new coronavirus infection COVID-19, considered to be a particularly dangerous infection, has convincingly demonstrated the necessity of development and specification of both treatment-diagnostic and evacuation measures, and improvement of medical care quality assessment in this pathology. In this connection the authors proposed new indicators, not included in the Recommendations, for patients with particularly dangerous infections, presented in Table 3.

Conclusion

Analysis of the results of the practical application of the criteria for quality control and safety of medical activity in the provision of emergency, including specialized emergency, medical care and medical evacuation showed the need to include additional indicators to assess patients with particularly dangerous infections in the Recommendations on the organization of internal quality control and safety of medical activity outside the medical organization.

СПИСОК ИСТОЧНИКОВ

1. Иванов И.В. Научное обоснование организации внутреннего контроля качества и безопасности медицинской деятельности на основе единых методологических и организационных принципов в условиях реализации национального проекта «Здравоохранение»: Дис. ... докт. мед. наук. М., 2020. С. 6–7.
2. Корчуганова Е.А., Титкова Ю.С. Управление обращениями как первый шаг к управлению качеством в медицинской организации // Медицинский вестник МВД. 2021. №6. С. 63–65.
3. Предложения (практические рекомендации) по организации внутреннего контроля качества и безопасности медицинской деятельности вне медицинской организации (при оказании скорой, скорой специализированной медицинской помощи) http://www.nqi-russia.ru/upload/doc/Predlozhenija_po_skoroj_v_tom_chisle_skoroj_spetsializirovannoj_meditinskoj_pomoschi.pdf
4. Гончаров С.Ф., Быстров М.В., Баранова Н.Н., Гусева О.И., Попов В.П. и др. Мобильные медицинские формирования Службы медицины катастроф Министерства здравоохранения Российской Федерации // Медицина катастроф. 2019. №3. С. 5-11.
5. Мешков М.А., Мишуллин И.Б., Баранова Н.Н., Иванов И.В., Таут Д.Ф. Учет нежелательных событий в организациях, оказывающих скорую медицинскую помощь. Анализ зарубежной медицинской литературы // Менеджмент качества в медицине. 2021. №3. С. 108–112.
6. Гончаров С.Ф., Баранова Н.Н. Критерии качества проведения медицинской эвакуации: обоснование оценки и практического применения // Медицина катастроф. 2019. №4. С. 38–42.

REFERENCES

1. Ivanov I.V. *Nauchnoe Obosnovannyye Organizatsii Vnutrennego Kontrolya Kachestva i Bezopasnosti Meditsinskoj Deyatel'nosti na Osnove Metodologicheskikh i Organizatsionnykh Meropriyatij v Realizatsii Proyektov «Zdravookhraneniye»* = Scientific Substantiation of the Organization of Internal Quality Control and Safety of Medical Activities Based on Uniform Methodological and Organizational Principles in the Context of the Implementation of the National Project "Healthcare". Doctor's thesis in Medicine. Moscow Publ., 2020;6-7 (In Russ.).
2. Korchuganova Y.E., Titkova Y.U. Management of Appeals as a First Step to Quality Management in a Medical Facility. *Meditsinskiy Vestnik MVD = MIA Medical Bulletin*. 2021;6:63-64 (In Russ.).
3. URL: http://www.nqi-russia.ru/upload/doc/Predlozhenija_po_skoroj_v_tom_chisle_skoroj_spetsializirovannoj_meditinskoj_pomoschi.pdf
4. Goncharov S.F., Bystrov M.V., Baranova N.N., Guseva O.I., Popov V.P., Romanov V.V., Chubayko V.G., Sakhno I.I., Mobile Medical Formations of Service for Disaster Medicine of Ministry of Health of Russian Federation. *Meditsina Katastrof = Disaster Medicine*. 2019;3:5-11 (In Russ.). <https://doi.org/10.33266/2070-1004-2019-3-5-11>
5. Meshkov M.A., Minulin I.B., Baranova N.N., Ivanov I.V., Taut D.F. Adverse Events Accounting in the Health Care Practice of Emergency Medical Service Foreign Literature Study. *Menedzhment Kachestva v Meditsine*. 2021;3:108-112 (In Russ.).
6. Baranova N.N., Goncharov S.F. Quality Criteria for Medical Evacuation: Substantiation of Assessment and of Practical Use. *Meditsina Katastrof = Disaster Medicine*. 2019;4:38-42 (In Russ.). <https://doi.org/10.33266/2070-1004-2019-4-38-42>

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