Scientific Foundation SPIROSKI, Skopje, Republic of Macedonia
Open Access Macedonian Journal of Medical Sciences. 2022 Jul 21; 10(F):495-500.
https://doi.org/10.3889/oamjms.2022.8410
eISSN: 1857-9655
Category: *F - Review Articles*
Section: *Narrative Review Article*

Medical Liability, Defensive Medicine, and Introduction to Professional Insurance in the Republic of Kazakhstan

Makpal Alchimbayeva[1], Tolebay Rakhypbekov[2], Gulmira Bazarova[1], Aigerm Baimagambetova[3], Oxana Tsigengagel[4]*

[1]Department of Medical Law and Ethics, NJSC Astana Medical University, Astana, Kazakhstan; [2]Kazakhstan's National Association "Primary Health Care", Nur-Sultan, Kazakhstan; [3]Department of Public Health and Management, NJSC Astana Medical University, Astana, Kazakhstan; [4]Department of Public Health, NCJSC Semey Medical University, Semey, Kazakhstan

Edited by: Eli Djulejic
Citation: Alchimbayeva M, Rakhypbekov T, Bazarova G, Baimagambetova A, Tsigengagel O. Medical Liability, Defensive Medicine, and Introduction to Professional Insurance in the Republic of Kazakhstan. Open Access Maced J Med Sci. 2022 Jul 21; 10(F):495-500. https://doi.org/10.3889/oamjms.2022.8410
Keywords: Medical malpractice; Professional liability insurance; Defensive medicine; Liability claims; Medical error
***Correspondence:** Oxana Tsigengagel, Department of Public Health, NCJSC, Semey Medical University, Semey, Kazakhstan. E-mail: tsigengagel.o@gmail.com
Received: 27-Dec-2021
Revised: 16-Jan-2022
Accepted: 11-Jul-2022

Funding: This research did not receive any financial support
Competing Interests: The authors have declared that no competing interests exist

Abstract

This study aims at verifying relationships between the perception of medicolegal risks involved in the professional activity of Republic of Kazakhstan (RK) health-care professionals (HCPs), defensive medical behavior, and their understanding of HCP liability (HCPL) insurance. The current paper also analyzes the experience of some foreign countries based on a study which suggests the ways of improving the medical liability, defensive medicine, and introduction to HCPL insurance in the RK. In addition, the identified advantages to introduction insurance and mediation as an extrajudicial regulation of disputes, the authors point out the identified shortcomings of the matter in the legal, acts of the RK. Relevance of the topic is reasoned to the fact that complaints about medical malpractice have increased over time in Kazakhstan, as well as other countries around the world. The costs arising from medical liability lawsuits weigh not only on individual HCPs but also on the budgets of health-care facilities, many of which in Kazakhstan are supported by public funds. A full understanding of the phenomenon of medical malpractice appears necessary to manage this spreading issue and mechanism of HCPL insurance in the RK.

Introduction

Since its independence in 1991, Kazakhstan has created its statehood to established, developed, and strengthened the foundations of its independence to provide for the country's territorial integrity and inviolability of borders; transferred the economy to a free market way of development; and successfully integrated into the global market. However, the legal sphere needs further reforms [1].

There has been a worldwide trend toward empowerment of the patient, with citizens demanding a more patient-oriented approach to health care. In the Central Asian republics (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan), independence and the new market economy have brought with them a demand for better health care [2]. The general public has begun to express its concern about medical errors (MEs), as well as the competence of health-care professionals (HCPs) [3]. Article 13 of the Constitution of the Republic of Kazakhstan (RK) provides for the right of citizens to protect their rights and freedoms with all means not contradicting the legal. Therefore, the Constitution entitles in addition opportunities to use judicial and other alternatives remedies of conflict resolution [4], [5].

The Central Asian republics, now, are grappling with both the good and the bad features of Soviet legacy. It is also likely that the culture of medicine, which has not encouraged HCPs to openly acknowledge an error, has contributed as well. Despite the observed health-care reforms, Kazakhstan still faces many unresolved problems and the reasons for these are complex [6].

For more than 30 years, the question of medical malpractice and consequent civil liability has been debated in judicial and health-care circles in all nations with high level health care [7]. Defensive medicine is defined as the ordering of tests and procedures or the avoidance of high-risk patients or procedures, primarily to reduce exposure to malpractice liability [8]. The rising frequency and severity of claims and lawsuits incurred by HCPs, as well as escalating defense costs, have dramatically increased over the past several years, and have resulted in accelerated efforts to reduce MEs and control practice risk for HCPs. ME reduction and improved patient outcomes are closely linked to the goals of the medical risk manager by reducing exposure to adverse medical events. Management

of HCP liability (HCPL) risk by the physician-led malpractice insurance company not only protects the economic viability of HCPs but also addresses patient safety concerns [9].

The review describes identify major medical malpractice reforms proposed in recent years, such as liability-limiting initiatives favoring HCPs and procedural innovations promoted as improving dispute resolution processes that should be prioritized to promote high-quality, equitable, and people-centered health care [10].

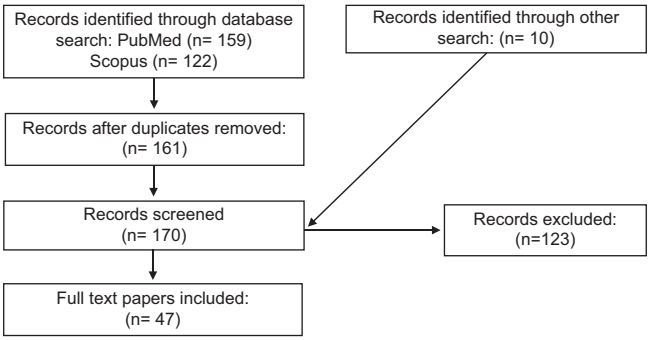

Figure 1: Flowchart depicting the choice of studies

Materials and Methods

Search strategy

The method in this review is the traditional literature review. Actually, there is not a single study that explicitly mentions the intersystem approach in HCPL insurance introduction and management in RK. We searched for all articles written in English in the literature available on MEDLINE in the within the recent decade (2010–2021) using the following search terms: “medical malpractice” AND “professional liability insurance” OR “medical negligence” AND “MEs,” “defensive medicine,” “civil liability,” “medico-legal litigation” OR “liability claims.” The objective of this review is to concentrate on articles and documents that contain useful information on medical professional liability insurance issues are reviewed in association with the occurrence of MEs and the role of health-care risk management and intersystem approach in HCPL insurance introduction and management. We included only articles available in the literature that contain information concerning professional liability insurance-related situations of risk and that recommend that the implementation of specific activities designed to mitigate the medicolegal litigation and facilitate the proper operation of strategic sectors to protect the HPLs. Articles that contained merely clinical or microbiological study were excluded from the study. Included papers were peer-reviewed publications and literature published in English, with papers published before 2010 excluded to maximize the policy relevance of the findings while ensuring adequate breadth. Following duplicate removal, title–abstract records were scanned and excluded if they clearly did not meet the inclusion criteria. All sources were evaluated independently by two of the authors to determine their relevance to the present study and then selected for inclusion by all the authors. All reviewers confirm the eligibility of the identified studies. Disagreements between reviewers were resolved by consensus. The flowchart for criteria and inclusion is presented in Figure 1.

Quality assessment

Due to the nature of the study designs, it was not possible to use existing instruments to assess the risk of bias in research. Existing tools for assessing observational studies (for example, Newcastle-Ottawa and ROBINS-I) were designed for clinical and epidemiologic studies, and no comparable tool is used in the field of econometrics. For that reason, we performed an independent, qualitative risk-of-bias assessment, summarizing the strengths, and weaknesses of the study. To ensure rigor, each article was reviewed by two team members with training in econometrics who were not involved in the study being evaluated. In addition to extracting limitations acknowledged by the study authors, reviewers noted strengths and weaknesses pertaining to the data source (e.g., sample size, population covered, range of covariates incorporated, and usefulness of measures, whether the data could support individual-level models), model estimation methods (e.g., identification strategy, control for confounders, potential endogeneity, and robustness checks), and any concerns about the accuracy of the study authors’ characterizations of the study findings.

Results and Discussion

Using the above search strings, MEDLINE produced 47 results that the authors considered relevant to the study in that they contain useful information for the professional liability insurance-related situations of legal liability and trial. Details of the documents analyzed and excluded are displayed in PRISM format in Figure 1. To facilitate comprehension of the text, we have collocated the results according to the specific study areas and reviewed them in a paragraphical narrative.

Analysis of the legal policy and trial in Kazakhstan

In RK, medical institutions that are funded by the budget practically do not use professional liability

insurance at present since most of them do not have a source of funds for insurance. Basically, insurance contracts are concluded by self-supporting medical institutions, private practicing doctors, or institutions that are on budget funding, but have self-supporting subdivisions. The activity of a HCP to provide health care in accordance with the current norms of law can be considered from the point of view of labor, administrative, civil and criminal law, and special legislation [11].

The RK has experience in insurance, the Law of the RK "On insurance activity" dated December 18, 2000 in accordance with subparagraph 11–2 of paragraph 3 of Article 6-insurance professional responsibility attributed to voluntary insurance [12]. The Law of the RK "On compulsory insurance of the employee against accidents cases in the performance of labor (service) duties" (dated February 7, 2005 No.-III with additions and changes for the current year) insures employer's civil liability in front of the worker [13]. According to subparagraph 11 paragraph 1 of Article 182 of the Code of the RK dated July 7, 2020 "On the health of the people and the health care system," medical and pharmaceutical professionals are eligible for HCPL for damage to health citizen in the absence of a negligent or negligent relationship on the part of a HCP [14]. In the insurance market of the RK, there are insurance products such as insurance civil liability of owners' vehicles (about 53% of the total premiums in compulsory insurance) and insurance professional from accidents in performance their labor (official) duties (about 42%), voluntary types of personal insurance, in including voluntary health insurance in case of illness – 32%, and life insurance 7–8% of the total insurance portfolio, which implemented through an insurance contract [15]. Although small now, Kazakhstan's health insurance market is growing fast.

In Kazakhstan, about 600–800 cases are initiated annually under Articles 317–323 of the Criminal Code of the RK. Altogether, within the period 2015–2019, there were 3951 registered cases of criminal offences against health, which led to 421 malpractice-associated deaths. Looking at the details, the rates of offences associated with improper performance of professional duties by a medical or pharmaceutical professional were significantly higher than that of other types of health crimes. Performance of illegal medical abortion and refusal to provide health care to a patient were two major types of criminal offences against health that had a downward trend during the study period. Few groups of offences against health showed a negligible decrease, although the rates of much of the offences remained relatively stable [16].

According to statistics, from 2016 to 2020 in the courts of the RK, under Article 317 of the Criminal Code RK received a total of 50 criminal cases. Of these cases, 43 were considered with sentencing in against 70 persons, returned to the prosecutor – 7 (14 persons) (Table 1).

Table 1: Absolute number of criminal cases across regions of Kazakhstan in 2017–2020

Geographic zone	Region (City)	Received case/persons	Reviewed with sentencing	Cases/persons returned to the prosecutor
East	East Kazakhstan	8/10	7/9	1/1
	Pavlodar	1/2	1/2	-
Central	Akmola	4/5	4/5	-
	Karaganda	8/20	5/11	3/9
North	Kostanay	2/3	2/3	-
	North Kazakhstan	-	-	-
West	Aktobe	2/2	1/1	-
	Atyrau	2/4	2/4	-
	Mangystau	1/3	1/3	-
	West Kazakhstan	-	-	-
South	Almaty	5/7	4/6	1/1
	Zhambyl	-	-	-
	Kyzylorda	4/6	3/4	1/2
	Turkestan	1/2	1/2	-
Cities	Almaty	4/8	4/8	-
	Nur-Sultan	5/9	4/8	1/1
	Shymkent	3/3	3/3	-
Republic of Kazakhstan		50/84	43/70	7/14

Criminal cases considered by the courts of the RK on corpus delicti, (according to parts of Article 317 Of the Criminal Code of the RK): Article 317 part 1 (moderate) – three cases/three people, article 317 part 2 (severe harm) – six cases/eight people, article 317 part 3 (death of person) – 29 cases/48 person, and article 317 part 4 (death of two or more persons) – one cases/onr people. Restriction of freedom got two health worker; suspended sentence – nine people; it was convicted, but released from punishment under amnesty – 11 people; convicted but released from punishment due to the expiration of the statute of limitations – 19; deprivation freedom – 3 (of which, in 2018, two medicals the employee received a reprieve for 5 years); and acquitted in courtroom – 11 people (Table 2) [17].

Table 2: Dynamics of court decisions under article 317 of the Criminal Code of the Republic of Kazakhstan for 2017–2020 (absolute numbers)

Article 317 of the Criminal Code of the Republic of Kazakhstan "Improper performance of professional duties by medical or pharmaceutical professional"					
	2017	2018	2019	2020	Overall
Conventionally	3	1	5	8	17
Restriction of freedom	-	1	1		2
Convicted, but released from punishment under amnesty	8	3			11
Convicted, but released from punishment in connection with expiration of the statute of limitations	14	4	1	3	22
Deprivation of liberty		2	1	2	5
Justified	3	2	6	2	13
Totally	28	13	14	15	70

The most often criminal cases are initiated on specialties related to surgical an intervention, where there is constant risk lethal outcome. This is obstetrician-gynecologists – 14 people, surgeons – 14, traumatologists – 8, the rest anesthesiologists, and resuscitators. The size compensation for moral and material damage in the benefit of the victims amounted to over 40 million tenge (KZT) (Figure 2) [18].

According to the data Health Protection Committee of the Ministry of Health of the RK at the end of 2017 received more than 3 thousand requests, of which about 50% were complaining about the quality of health services. Based on the outcome of cases, 430 administrative protocols were drawn up, where there

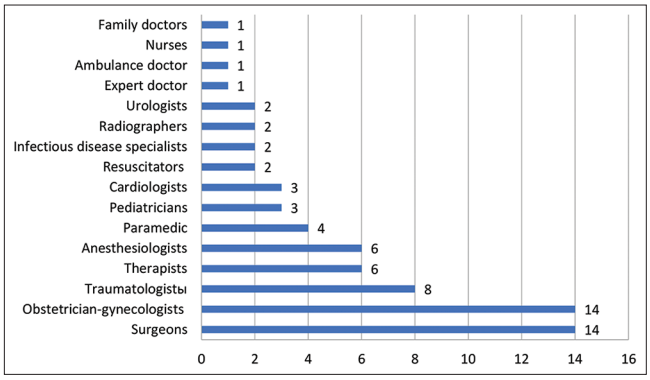

Figure 2: Prevalence of the number of criminal cases across specialty

were 299 individuals, 87 officials and 23 legal entities. The amount of compensation in favor of patients amounted to over 8.8 million tenge (KZT) [19].

In the RK, ensuring the safety of patients is a major problem in the process of introducing modern biomedical and industrial technologies, thus requiring a systematic approach in the provision of high-quality health care. The decision is hampered primarily by the lack of generally accepted guidelines for classifying and reporting MEs and their causes. The key factors affecting patient safety are poorly understood. There is a lack of methods for measuring and monitoring the level of patient safety, which often makes law decisions biased [20].

In summary, Kazakhstan has not yet developed health protection system and tools of HCPs in the event of disputes and litigation regarding the expertise of HCPs, no official statistics are kept MEs, no specialized regulatory legal acts for the protection of rights patients and HCPs, and the level the provision of health care is assessed by the number of patient complaints. Medical professionals do not have full legal protection, although they are socially significant providers of affordable health care for the whole society.

Four types of HCPL insurance plans

For the development of financial and legal systems of health protection of HCPs of the RK, there are many strategies. For the development of financial and legal systems of health protection of HCPs of the RK, there are many strategies, such as:

Creating independent non-profit compulsory foundation professional liability insurance HCPs

Establishment of an independent non-profit compulsory insurance fund of professional responsibility of HCPs - the most an acceptable option for the medical community, in view of neutrality and independence. For his setting and work on a legislative basis it is necessary to make editorial amendments to the Code “On the health of the people and the health care system of the RK” and other legal acts [21]. In this case, all of HCPs and health organizations are invited unite to create an independent non-profit fund through which you can sell compulsory HCPL (with payment of insurance amounts compensation for damage to the health and life of patients). Definition insurance professional responsibility of HCPs, the latter must also be provided accompanied by qualified legal assistance (to a health professional, medical organization), training, mediation support, payment of the insured amount (in the event of an insurance case), the motivation for insurance of (as partial compensation/ refund/amount insurance for the financial year - for example -if such situations have not arisen in his activity).

Introduction of insurance responsibility of HCPs through operating insurance companies

Professional insurance responsibility of HCP through functioning insurance companies

The insurance companies are organizations that pursuing commercial goals and financial benefit, in this regard, expect regular payments for each insured event which is not presented possible. The advantage of insurance companies is the presence of a license to engage in insurance activities in the RK, the presence of their own financial funds, experience in the insurance market. The National Bank of the Republic of Kazakhstan will be the authorized body regulating the entire mechanism and logistics of the professional medical workers’ liability insurance through insurance companies (insurance holdings) [22], [23].

Introduction of insurance through professional associations of HCPs of the RK

The insurance through professional associations of HCPs of the RK is a widely common practice abroad, but the work of such associations is not subject to Kazakhstan and licensing is voluntary. Often their activities are reduced to collective appeals to the authorized body recommendations regarding a particular issue in the field of medicine (surgery, therapy, pediatrics, dentistry, etc). The country has different number of HCP associations, with implementation of the insurance mechanism through associations also need to amend the current laws, legal acts, and empower the right to implement whole insurance process professional responsibility of HCPs.

The distinguishing feature of this option is that the insurance body is the Medical Association. The medical associations will have an arbitration committee composed of independent medical experts and lawyers.

Creation of a structural unit under the social health insurance fund

The advantage of this model will be the support of the state, a unified standard of services provided, as well as cost reduction. It should be noted that there

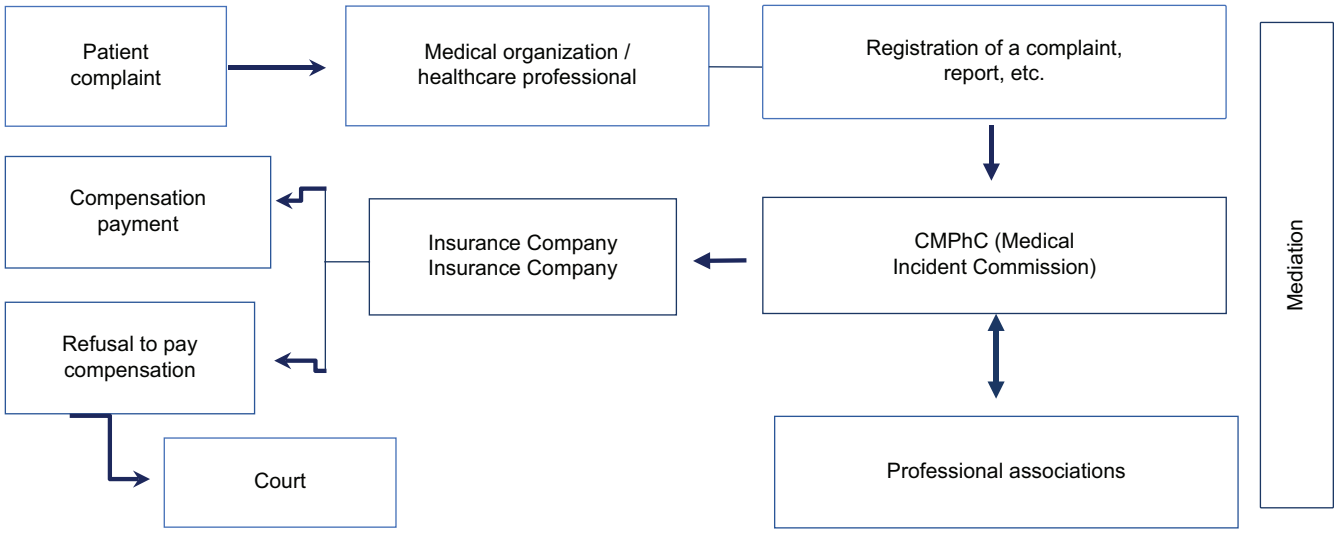

Figure 3: The mechanism of HCPL insurance

are a possible conflicts of interest associated with the procurement and payment of services of health-care entities and a high dependence on the political system, a high degree of control by inspection bodies. Authorized capital is required to create a fund.

Proposed professional responsibility mechanism for HCPs

Case review mechanism improper performance of professional responsibilities if approved by one of the models will be divided into three levels depending on from the severity of the case and the regulatory process.

First level

In the event of a medical incident, the patient must go to a medical the organization, where he received health services for a medical incident report. On the at this stage, the issue can be resolved in the medical organization itself, namely, in the Service Internal Audit or the Quality Control Service and patient support (hereinafter referred to as the service) depending on from the structure of a medical enterprise.

Second level

In case of dissatisfaction with the complaint the patient by the decision of the Service, the incident will be referred to the Commission on Medical Incidents of the Committee of Medical and Pharmaceutical Control of the Ministry of Health of the RK (CMPhC) (territorial subdivision) and also to the Insurance organization, where it was purchased medical insurance policy or a HCP and will be provided with a report on the presence of inappropriate performance of HCP duties in Insurance organization.

Third level

Making a decision to pay compensation for harm caused to the patient, remains on insurance company. In case of refusal to pay and dissatisfaction, the patient has the right apply to the Court. In case of compensation, the patient is not entitled to apply to the courts. Not eligible for compensation are inevitable incurable diseases (cancer, HIV, AIDS, etc.), unreasonable complaints (Figure 3).

The amount of the insurance payment will be determined taking into account the degree of participation of the HCPs (in the context of the specialty). No disability – 300 MCI (875,100 KZT), disabled child – 500 MCI (1 485 500 KZT), disability III group – 500 MCI (1 485 500 KZT), disability II group – 600 MCI (1 750 200 KZT), disability I group – 800 MCI (2 333 600 KZT), and death of a patient – 1000 MCI (2 917 000 KZT). Hereafter, the amount of money shown is presented in United States dollar (US$), based on the following conversion rate to Kazakhstan's tenge (KZT): US$1 = KZT 382.59 (2020 year) and US$1 = KZT 420.91 (2021 year) [24].

Conclusion

The study suggests that the introduction of compulsory professional liability insurance for HCPs is especially important, because it will provide guarantees of compensation for harm in the event of damage caused during the provision of health care, improve the quality of health services provided, to reduce the level of conflict since the patient is guaranteed compensation for the damage caused, and the HCPs is provided with a mechanism for resolving this legal conflict. Thus, in order to further strengthen this institution, it is necessary to improve the rules regarding insurance relations based on the experience of developed countries.

References

1. Galiakbarova G, Saimova S. Mediation of labour disputes in Kazakhstan in comparative context. Russ Law J. 2016;4(2):96-111. https://doi.org/10.17589/2309-8678-2016-4-2-96-111.
2. Imankulova BN, Dzhusupov KO. Some issues of occupational health of health care workers in central Asia (Review). Ann Glob Health. 2018;84(3):459-64. https://doi.org/10.29024/aogh.2329
   PMid:30835401
3. Salvage J. Book: Health care in Central Asia. BMJ. 2002;324(7347):1223.
4. Abdrasulov EB, Bazhay K, Abdrasulova AE. Application of the constitution of the Republic of Kazakhstan: Legal, value and functional content. Bull Inst Legis Leg Inf Repub Kazakhstan. 2020;5:123-4.
5. Abdrasulov EB. The constitution of the Republic of Kazakhstan and international law. Bull Acad Law Enforc Agencies. 2021;1:56-62.
6. Leive A. Economic Transition and Health Care Reform: The Experience of Europe and Central Asia. United States: International Monetary Fund; 2021.
7. Vincent C, Phillips A, Young M. Why do people sue doctors? A study of patients and relatives taking legal action. Lancet. 1994;343(8913):1609-13. https://doi.org/10.1016/s0140-6736(94)93062-7
   PMid:7911925
8. Berlin L. Medical errors, malpractice, and defensive medicine: An ill-fated triad. Diagnosis (Berl). 2017;4(3):133-9. https://doi.org/10.1515/dx-2017-0007
   PMid:29536927
9. Abbott RL, Weber P, Kelley B. Medical professional liability insurance and its relation to medical error and healthcare risk management for the practicing physician. Am J Ophthalmol. 2005;140(6):1106-11. https://doi.org/10.1016/j.ajo.2005.07.020
   PMid:16376659
10. Tsigengagel O, Glushkova N, Khismetova Z, Korostova Y, Kussainova D, Sovetbekov D, *et al*. The public's views on responsibility for medical errors in the Republic of Kazakhstan. Eur J Public Health. 2021;31(Suppl 3):2021.
11. Sarymsakova B. Kazakhstan. In: Handbook of Global Bioethics. Berlin, Germany: Springer Nature; 2014.
12. Nadyrov KT, Ospanova DA, Nurgozhaev AA, Nurbakyt AN. On securing the financial stability of the health system under implementation of compulsory social health insurance. Ann Trop Med Public Health. 2018;2:35-3.
13. Shendakova TA, Alibekova IV. Individual occupational risk of employees in allowable working conditions. Issues Risk Anal. 2020;17(2):478-82.
14. Omir AS, Abilkaiyr NA. Measuring main public health indicators of the republic of Kazakhstan. Econ Strateg Pract. 2021;16(3):234-8.
15. Alimzhanova M. Problems in the development of Islamic insurance market in the Republic of Kazakhstan taking into account the experience of Malaysia. Actual Probl Econ. 2012;138(12):2-10.
16. Tsigengagel O, Glushkova N, Mammadov V, Khismetova Z, Gazaliyeva M, Ibrayeva Z, *et al*. Epidemiology of offences against health in the republic of Kazakhstan: 2015-2019. J Law Med. 2021;28(2):492-502.
   PMid:33768754
17. Mitskaya E. Theoretical thoughts on legal regulation of mediation in criminal process in Kazakhstan. Int J Crim Justice Sci. 2020;15(1):91-113. https://doi.org/10.5281/zenodo.3822110
18. Ministry of Justice. Code of Criminal of the Republic of Kazakhstan. London: Ministry of Justice. Available from: http://adilet.zan.kz/rus/docs/K1400000226 [Last accessed on 2021 Dec 05].
19. Tsigengagel O, Glushkova N, Samarova U, Begimbetova G, Khismetova Z. Prevalence and medical error management (review). Georgian Med News. 2020;(308):155-60.
   PMid:33395659
20. Toleubayev M. Attitude towards of medical errors in Kazakhstan and in the world. J Clin Med Kazakhstan. 2016;4(42):22-6. https://doi.org/10.23950/1812-2892-2016-4/jcmk-00362
21. Рахметова АМ, Будешов ЕГ, Rakhmetova A, Budeshov Y. State Management of Healthcare System as the Basis for the Quality of Life in Kazakhstan. Вестник Казахского университета экономики, финансов и международной торговли; 2020.
22. Komekbayeva LS, Legostayeva AA, Tyan OA, Orynbassarova YD. Government measures for economic support in the conditions of a floating exchange rate of the national currency. Math Educ. 2016;11(7):2227-37.
23. Amangozhayeva BB, Abdíldín SS, Kydyrbaeva SD. The improvement of statutory and legal regulation of payment system of the Republic of Kazakhstan. Bull Turan Univ. 2021;1:103.
24. Kanagatova D, Sidorenko V. Monetary policy of the national bank of Kazakhstan: Chronological analysis and assessment. Econ Strateg Pract. 2021;15(4):12-7.