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Physicians' liability for medical errors – risk factors and possible actions

Abstract
Physicians make decisions in regard to providing medical services with due diligence according to evidence based medicine and the principles of professional ethics. Sometimes, despite their efforts, they make medical errors as a consequence of the actions taken. The main purpose of the article is to analyze the issue of medical errors in the context of physicians' liability for committed errors. In this paper the types of physicians' liability in relation to their professional work were discussed and the types of medical errors were indicated. On the basis of the author's own research, the most significant influential factors to the possibility of making mistakes by physicians were determined. Regarding the SARS-CoV-2019 pandemic situation, the legal protection of physicians was analyzed. The most significant supporting factor, the removal of criminal liability for errors was indicated by the majority of the physicians. The article presents an example of a system based on open error reporting to eliminate them. The theoretical considerations were complemented by the statement of a physician employed in Sweden. The implementation of a key conclusion in public health care units in Poland was proposed. The discussed topic is intriguing and relevant regarding the pandemic phenomenon.
Keywords: medical error; physicians' liability; no fault; COVID-19.

Odpowiedzialność lekarzy za błędy medyczne – czynniki ryzyka i sposoby działania

Abstrakt
Lekarze podejmują decyzje dotyczące świadczenia usług medycznych z należytą starannością w oparciu o aktualną wiedzę medyczną i zasady etyki zawodowej. Czasami, mimo podejmowanych starań w konsekwencji realizowanych czynności występują błędy medyczne, które stanowią zagrożenie dla bezpieczeństwa pacjentów. Celem głównym artykułu jest analiza problematyki błędów medycznych w kontekście odpowiedzialności lekarzy za popełnione błędy. W tekście omówiono rodzaje odpowiedzialności lekarzy w związku z wykonywaną pracą zawodową oraz wskazano rodzaje błędów medycznych. Na podstawie badań własnych określono czynniki wpływające w największym stopniu na możliwość popełniania błędów przez lekarzy. W odniesieniu do zjawiska pandemii SARS-CoV-2019 dokonano analizy sytuacji dotyczącej ochrony prawnej lekarzy przy zwalczaniu epidemii oraz przedstawiono najważniejsze zdaniem lekarzy czynniki wspierające ich pracę, wśród których kluczowym postulatem było zdjęcie odpowiedzialności karnej za popełnione błędy. W artykule zaprezentowano przykład systemu opartego na otwartym zgłaszaniu błędów i szukaniu rozwiązań ich eliminacji. Rozważanie teoretyczne uzupełniono wypowiedzią lekarza zatrudnionego w podmiocie leczniczym w Szwecji. Na podstawie analizy zaproponowano kluczowy wniosek do wdrożenia w publicznych jednostkach ochrony zdrowia w Polsce. W artykule dokonano przeglądu literatury, wykorzystano informacje statystyczne oraz wyniki przeprowadzonych badań w bieżącym roku.

Poruszany temat jest interesujący i w odniesieniu do zjawiska pandemii w pełni aktualny, dlatego w pełni uzasadnione jest jego podjęcie i opracowanie.
Słowa kluczowe: błąd medyczny; odpowiedzialność lekarzy; COVID-19.
JEL: M54

Introduction

Social health protection involves the need for a country to secure the necessary conditions that determine the need for medical services. Health care systems in Europe are an essential element of a high level of social protection and the basis of Europe's social market economy (Głowacka, 2017). One of the key areas of social activity of the state is health protection of citizens. People's health can stimulate economic growth as it prolongs the period of human fitness and the ability to continue working. Investing in health also reduces the costs associated with treating preventable diseases. It is therefore necessary to ensure adequate management of the healthcare provider in terms of access to medical staff, as well as supporting them especially in times of pandemics (Korporowicz-Żmichowska, 2012). In order to ensure high quality of providing healthcare services, the execution process of risk management has a significant importance. It is an integral part of health care entities management in highly developed countries, incl. the United States of America. The basic assumptions of the risk management system in hospitals at the operational level include joint efforts of medical personnel and management aiming to identify and reduce the occurrence of adverse events. It is crucial to develop a risk management program including the assessment of ongoing actions in the context of risk control and ensuring a quality management system in hospitals (Singh, 2012).

The occupation of a physician belongs to the so-called group of public trust and it is perceived as a special profession. This is related to the fact that people entrust their health and life to physicians (Sesiuk, Rzepiela, Galas & Jankowska, 2017, s. 191). Every physician has to abide by a complex medical oath which makes it necessary to provide help and treatment regardless of patient's financial status or place of residence (Pietrzak, 2018). Medical Code of Ethics states "doctor's calling is the protection of human life and health, prevention of disease, treatment of the sick and relief of suffering" (SMC, 2003). Sometimes, despite making efforts with due diligence to practice medical profession properly, making appropriate diagnosis and choosing treatment according to best medical knowledge and evidence based medicine, physicians make mistakes. Patients are the subject of decisions and actions taken by physicians so the effects of an unintentional mistake may be nonreversible, causing

permanent damage to patient's health or even death (Serwach, 2016). In medicine, the crucial principle taken from the Hipocratic oath is *primum non nocere*. It means, first do no harm. Patients' safety is the key issue, therefore special attention should be paid during providing medical services to minimize the possibility of negative effects. In case adverse events occur, it is crucial to conduct accurate analysis. It helps to prevent similar situations in the future and to increase patients' safety (Rodziewicz, Houseman, & Hipskind, 2020).

In connection with the above, a vital issue is the method of realization by health care entities of the strategy in order to report medical errors. It is possible by the identification of reasons and the implementation of organizational solutions limiting their occurrence in the future. Because of that, the main purpose of the article is to analyze the issue of medical errors in the context of physicians' liability for committed errors. This is important from the point of view of the healthcare provider but also from the point of view of the patient as the recipient of medical services. The possibility of openly reporting medical errors is beneficial to society because, if a medical error has been made, it is possible to seek solutions on how to avoid it in the future. In addition, patients being informed of the error that has occurred will be able to pay attention to monitoring the possible adverse consequences for their health. Moreover, the outcomes of this article could have practical implications for medical entities to improve their operation areas in providing medical services.

The article is of a theoretical and empirical nature. In the theoretical part, the introduction to the issue of medical errors was provided based on Polish and English-language literature. In this paper the types of physicians' liability and types of medical errors were discussed. Moreover, the most significant influential factors to the possibility of making mistakes by physicians were presented. The theoretical considerations were implemented by description of "no fault" based on Sweden. In empirical part result of two surveys among physicians employed in medical entities in Poland were analyzed and implemented by qualitative part. The considerations should take into account specific conditions which are the consequences of the occurrence and continuation of the pandemic caused by COVID-19 virus.

Types of medical errors and physicians' responsibility

The definition of a medical error has not been unambiguously formed in an enumerative way. The lack of standardized terminology makes data analysis, synthesis and evaluation much more difficult. There are two main types of errors. The first group includes omission errors which are the result of the lack of correct actions taken, e.g. failure to administer medication

in a health and life threatening situation. The second group are mistakes resulting from the impropriety of actions taken. For instance, transfusion of the incorrect blood type or administration of medication after which an allergic reaction has already occurred (Rodziewicz et al., 2020). The science doctrine distinguishes many types of medical errors. Basic typology includes four types of errors: diagnostical, therapeutical, organizational and technical (Zieliński, 2016, p. 189). The mentioned errors are briefly characterized in the Table 1.

Table 1. The characteristic of the main types of medical errors

Type of medical error	Characteristic
Diagnostical error	Results from an incorrect diagnosis of the patient's health caused by physicians' wrong performance
Therapeutical error	Of dichotomicus nature, includes physicians' wrong performance as a result of incorrect diagnosis or is constitutes occurring in the treatment phase despite previous correct diagnosis of a disease entity
Organizational error	Concerns inappropriate organization of work and may lead to a technical error
Technical error	Is a result of an improper therapeutic activity, in principle this error is associated with complicated medical services and appears most often during surgical procedures

Source: own elaboration based on Zieliński (2016, p. 189–191).

During performing occupational activities, a physician bears legal liability in civil and criminal scopes, as well as professional and employee liability. In order to recognize the occurrence of civil liability for the damage caused during providing medical services, three premises have to be present. The first one is harm, also called as damage of patient's health, is a result of an omission or an incorrect action taken by a doctor. The second important criterium is the adequate cause and effect connection between a doctor's action and the resulting damage. Last but not least, the third aspect is the fault of the responsible medical entity. Focusing strictly on treatment, doctors may be perceived in the field of legal liability in the criminal law area. A medical error in the situation "when they treat, not the way they should" can be pointed out (Zieliński, 2016, p. 183).

Criminal liability occurs when a physician's conduct or omission could be classified as a crime (Serwach, 2016). The fact that physicians can be held criminally liable only for unintentionally acting against patients' health or life should be emphasized. Deliberate violation of *lege artis* cannot be equated with an error but with an intentional crime (Zieliński, 2016, p. 191). A physician is professionally responsible in a situation when the principles of dentology have been violated, including the violation of ethical standards (Serwach, 2016). Employee liability exists only at the time of employment based on employment agreement. According to the labor code, in case of unintentional injury patient's health damage has to be

remedied by the employer (Obwieszczenie, 2019, art. 120). A different situation occurs when physicians take up employment based on a civil law agreement, the so-called contract (Latin *concractus*). Physicians are fully responsible for malpractices (Golusińska, 2016).

In Poland between 2016 and 2017 there was a noticeable increase in the number of ongoing criminal proceedings for medical errors (from 4963 to 5678 cases). It is worth noting that only about 7% of the 2000 cases concluded with a substantive decision in 2017, led the prosecutor to believe that the suspicion of an offence was sufficiently proven. Proportion of cases the courts confirm the doctor's guilt is not known, nor it is possible to indicate how many medical error cases have been pending (Niemczyk, 2018). The next fundamental issue is the fact that it is not possible to determine precisely the number of medical errors in Poland, as Poland does not have a register of medical errors. Registers of medical errors exists in many countries, and their task is primarily to analyze errors, draw conclusions and exclude irregularities. In order to eliminate the negative phenomenon of medical medical errors, it is necessary to determine place, scale and reasons they occur (Guzik-Makaruk, Truskolaska, & Wojewoda, 2021). Due to this information, it is crucial to implement a mandatory registration of medical errors in Poland and encourage physicians to report them without consequences. In the future it may lead to an improvement perceived as reduction of errors occurrence.

Factors influencing the possibility for committing a medical error in a SARS-CoV-2019 pandemic situation

A few weeks before the phenomenon of the SARS-CoV-2019 pandemic in January 2020 a survey among physicians employed in medical entities in Poland was conducted. The survey questionnaires were made available on private online groups for medical professionals. A total of 411 physicians participated in the survey providing all answers anonymously. In addition, as a continuation of the investigation the phenomena, a survey during the pandemic in November 2020 was conducted. The survey concerned the most essential support for doctors during the pandemic. The survey questionnaire involved 2,400 physicians who were the members of a private physicians' group on the Internet. The answers given were not anonymous. The quantitative study of these two surveys was supplemented by an interview with a doctor working in a health care unit in Sweden. The chart below (Figure 1) shows the answer to the question which factors in the opinion of physicians most significantly influence the committing of medical errors.

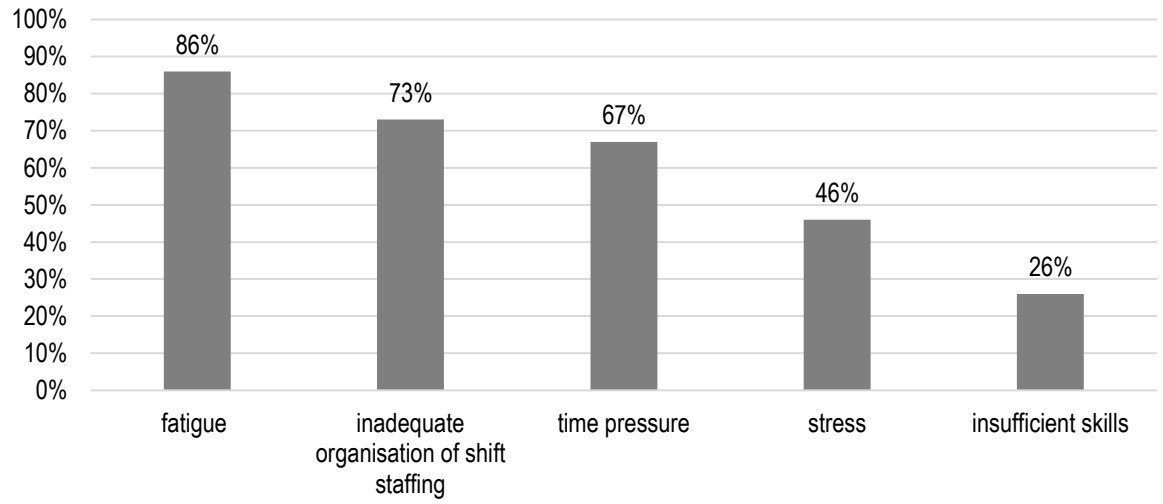

Figure 1. The most important factors according to physicians influencing the possibility of committing a medical error

Source: own data and elaboration.

The factor significantly affecting the possibility of committing a medical error indicated by the largest number of doctors (86%) is fatigue. Much more than half of the respondents (73%) indicated inappropriate organisation of staff securing medical duty and time pressure (67%). Then stress (46%) and the need to undertake actions exceeding the skills (26%), e.g. performance of procedures requiring the competence of a specialist by physicians undergoing internship or being during residency were indicated. Other factors pointed out by physicians included a poor organisation of work and not much good hospital management (2%). Doctors mentioned, among others, shortages in appropriate drug supply in hospitals as well as lack or limited use of medical equipment resulting in insufficient diagnostics in a given centre. The responses also indicated too small number of physicians, consequently leading to too many patients per person and the need to perform work despite fatigue. A factor influencing the possibility of error was an excessive number of documents to be filled in, many of them, as was identified, unnecessary. Moreover, it limits the time available for an examination of the patient. In addition, the need for resident physicians to make very important decisions on their own while lacking constant support from experienced specialist physicians were identified as significant factors. Among other factors influencing the possibility of making a medical error, physicians indicated the lack of analysis and discussion in the team talking about the errors that occurred in order to avoid them in the future. In fact, there is pointing out of errors, which causes additional stress for the physician. Moreover, physicians' reluctance to order additional tests, ignorance and lack of attention to the patient, and a general lack of diligence in performing tasks were signed in the questionnaire.

When the WHO announced the global pandemic on 11 March 2020 due to the rapid worldwide spread of infection caused by COVID-19 coronavirus, the situation became much worse. In many countries on all continents there was a lack of adequate and necessary personal protective equipment for health care workers, including gowns, gloves, face shields, and disinfectants. Also a shortage of key medical equipment for the care of critically ill patients, including ventilators allowed the existing condition to be described as an emergency (Ranney, Griffeth, & Jha, 2020). Referring to the current topic of the SARS-CoV-2019 pandemic, in November 2020 a questionnaire among physicians on private groups of physician association was distributed on social networking sites. All answers given were not anonymous. The answers provided by the respondents concern support which according to them was fundamental during pandemic. Therefore, referring to the current subject of the SARS-CoV-2019 pandemic, the figure below (Figure 2) shows the three areas identified by the highest number of interviewees as critical.

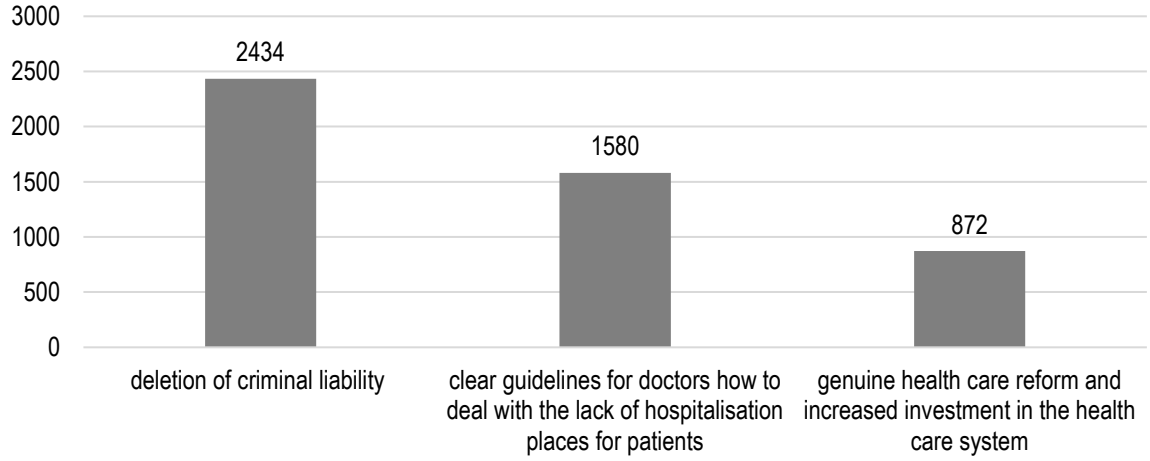

Figure 2. The most essential support for physicians during the pandemic

Source: own elaboration based on unpublished data (Pisuła, 2020).

The most important action indicated by the largest number of respondents would definitely be to remove criminal liability in the event of a medical error. In the medical community it is referred to as no fault. Of course in such a case it is extremely important to make detailed analysis of the event in order to reduce the likelihood of it occurring in the future. Also, it is vital to construct a system of compensation for patients in the event of a mistake. The second aspect is to establish clear guidelines for doctors to follow in order to make decisions. It would be extremely difficult to define universal rules of conduct, as the doctor should adapt their actions to a particular case, taking into account the many unique and diverse conditions of a particular patient. The third and also important aspect is the need to reform the health care system and increase public funding. The postulate is fully justified, as the Polish public

health care is significantly underfinanced in comparison with other European countries. Public expenditure allocated to the health care system in 2019 accounted for only 4.3% of GDP (OECD, 2020).

Conclusions and recommendations for the reporting system and liability for medical errors in Poland

The factors mentioned above have a common denominator which is a significant shortage of physicians in Poland. The insufficient number of physicians in relation to the staff needs of medical entities in Poland is an extremely important problem for public medical institutions. Poland has the lowest number of physicians per 1000 population among the countries of the European Union (OECD, 2020). The position of Polish health care among democratic European countries is presented in Figure 3.

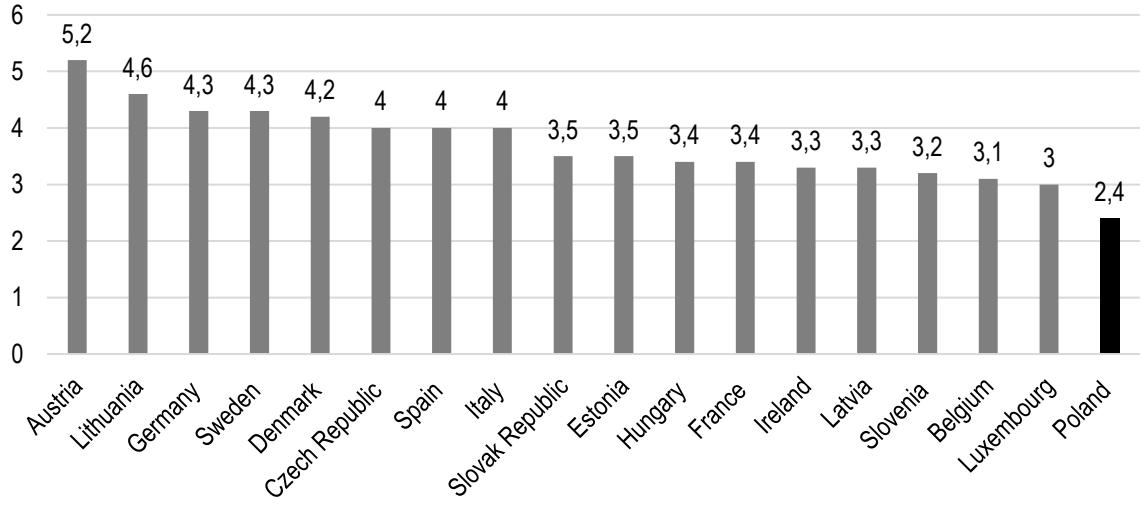

Figure 3. The number of physicians per 1000 inhabitants in the European Union countries

Source: own elaboration based on (OECD, 2020).

The shortage of qualified staff to provide medical services reliably and efficiently was already a crucial problem before the time of the pandemic, and has now only grown significantly. Fatigue, sub-optimal staffing arrangements, time pressure and stress are all factors that result from a shortage of sufficient numbers of physicians in Poland. They not only result in the possibility of medical errors being made, but also represent significant factors for physicians. Currently, an extremely important issue concerning physicians is the responsibility for mistakes made as a result of taking medical action during a pandemic. On 28 October 2020, the Parliament of the Republic of Poland received a bill on amending certain acts in connection with counteracting crisis situations related to COVID-19. According to its assumptions, the criminal liability of physicians for mistakes made as a result of diagnosing

and treating COVID-19 would be excluded. It should be noted, however, that medical mistakes made when treating coexisting diseases, as well as other mistakes which may also result from the existence of the pandemic, e.g. caused by physicians' exhaustion and lack of available resources, would still be subject to criminal liability. In addition, the legal provision would exclude liability for the crime committed, but at the same time would not exclude prosecution in the case of errors that have the characteristics of a crime. Therefore, only after conducting the proceedings (including the analysis of medical records, hearing witnesses, and obtaining expert opinions) would it be possible to discontinue them (Tymiński, 2020).

In Poland, an attempt has been made to introduce a system of compensation for events which have occurred, such as a bodily injury to a patient, an infection with a biological or pathogenic agent, a damage to health or death. Provincial commissions for adjudicating on medical events have been established, i.e. bodies which make it possible to pursue claims for medical events in hospital. However, a significant problem is that the compensation for the patient is to be paid by the hospital from its own resources. Independent health care institutions, of which hospitals constitute the largest share, are in debt. Therefore, spending funds to make financial compensation is not the favourable situation to which hospitals would like to aspire. In practice, the necessity for hospitals to bear financial responsibility for the errors which have occurred may result in intentional failure to report the errors. As a consequence, it makes it impossible to introduce corrective measures by making a detailed analysis of the event and preparing solutions aimed at avoiding a similar situation again.

In Poland, many court proceedings take a long time, and after the proceedings are concluded, the compensation amounts awarded are often disproportionate to the error that has occurred. This is due to the inefficient functioning of the judiciary, but also to the solidarity among the medical profession, which makes it difficult to assess the merits of the action in question. Currently in the jurisprudence of Polish courts there is a tendency to award more and more compensation to patients or their closest family members. This is influenced by the growing awareness and knowledge of the injured about their rights and possibilities (Nieszporska, 2017). Gazeta Lekarska quoted the words of Sławomir Badurek, MD, PhD, vice-president of the Kuyavian-Pomeranian voivodeship Regional Medical Council in Toruń, regarding the issue of medical errors. In the author's opinion, they accurately illustrate the current situation in the context of the system of incurring liability by physicians for medical errors committed in Poland.

> *Currently, admitting to a stumble means a denunciation to the prosecutor's office, a trial and very often an extremely harsh punishment in the form of suspension of the right to practice your profession, which means no earning capacity. After the changes to the Penal Code, going to prison will also become a reality. In my opinion, stricter penalties will result in even fewer cases of a doctor admitting a mistake, which even today are rare.* (Tomczak, 2019).

An excellent reference in the topic of responsibility for medical errors and the way in which their reporting is carried out is the reference to the applied strategy of other countries. The author decided to present the system functioning in Sweden because Sweden was the first Scandinavian country to introduce the "no fault" system as early as in 1975. Medical entities are obliged to have insurance in order to cover liability for damages incurred while providing medical services. Patients can file claims without legal costs and receive compensation if the damage is confirmed. This solution is extremely beneficial for medical professionals as it allows for open reporting of errors without in personam criminal sanctions or any action by the Swedish Medical Liability Commission (Hälso-och Sjukvårdens AnsvarsNämnd). Reporting errors for analysis positively influences the possibility of avoiding them in the future, therefore the solution is beneficial for both doctors and patients (Watson & Kottenhagen, 2018). This article quotes Mateusz Rybicki, a physician working in Sweden and author of the podcast "Doctor in Sweden", who, based on his own experience, presents how the strategy for reporting medical errors is implemented in Sweden.

> *In Sweden, a doctor who inadvertently makes a mistake is not punished in any way, I have never even heard of fines or other such reprisals. Instead, a report is made about what went wrong. Anonymously, without naming scapegoats. The doctor is obliged to learn from the incident and the hospital to make changes, to improve procedures so that the mistake is not repeated. Once a month we receive such anonymous reports by e-mail, so that we can all learn from such incidents and so that we do not have to repeat mistakes that have already occurred.*

The system of reporting errors and the way in which liability is incurred as a result of events unaccounted for is different in Poland and Sweden. In Poland, the aim is to avoid reporting errors. It is an unfavorable phenomenon because it prevents professional development of physicians and does not positively influence improvement of patient safety. In Sweden, the no fault system is used, so there is an incentive to report errors in order to analyse them and find solutions to improve the safety of services provided.

A limitation of this study was that the survey results represented only the opinion of the physicians. It is worth to extend the article of case studies which can clearly show examples of unintentional medical errors, its consequences in case of its omission. It allows to emphasize the importance of reporting medical errors for patients benefits. Taking into

account the fact that the article based on the results of a survey enriched with the statement of the physician employed in the Swedish system, is worth considering further deepening the research. Among other things, it is worth comparing solutions used in other European countries to implement the best practices.

Summary

Physicians analyzing an individual case of a patient's operate on evidence based medicine. Even so, medical errors can occur even among experienced specialists and may result in permanent effects on patients' health and life. Reporting medical errors to conduct a detailed analysis is extremely important to minimize the possibility of their occurrence in the future. The system of liability for inadvertent errors may result in an attempt to avoid responsibility and to resign from reporting irregularities in order to ensure legal security for physicians, which might contribute to avoidance of the concern with patients' safety. The penalization of medical errors has a negative influence on the possibility to repair the health care system by excluding the possibility to look for improvement actions. The system of reporting medical errors used in Sweden is really worth mentioning. Reporting medical errors there is treated as an activity which allows to draw conclusions from an event and introduce improvements in order to reduce the likelihood of the repetition of such occurrence in the future.

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