MEDICATION ERRORS: IS IT MORE IMPORTANT TO FIND AND PUNISH THE GUILTY ONE, OR TO REDUCE THE LIKELIHOOD OF RECURRENCE OF AN ERROR?

Ausrine Amsiejute, Doctoral candidate
Mykolas Romeris University, Lithuania
Hospital of Lithuanian University of Health Sciences Kauno klinikos, Lithuania

Abstract

It is always emphasised in case-law that the nature of medical personnel's liability is determined by significance of health care as a social activity area, and the related need to ensure adequate health care services to the public. People who work in the medical field make errors like everyone else. When it comes to medication errors, it is usually considered that these errors are the most preventable, but also they are the errors which may result in the greatest negative consequences. Unfortunately, the entrenched traditional approach to medication errors, which can be described as "naming, blaming, shaming and punishing", does not increase safety in medicine. This enrooted perception associating error with non-professionalism, lack of attention and negligence, not only discourages learning from mistakes, but on the contrary – promotes their hiding.

Keywords: Human error. Medication error. Criminalization

Introduction

It is always emphasised in case-law (both in criminal and civil cases) that the nature of medical personnel's liability is determined by significance of health care as a social activity area, and the related need to ensure adequate health care services to the public. It is especially emphasised that the patient and medical staff are linked by the obligation, whose content is the physician's duty to ensure that this obligation is carried out by making the maximum effort, i.e. ensuring the maximum degree of attentiveness, diligence, prudence and proficiency. The specialist's qualifications held presume the quality of service, and the person relying on the specialist needs to feel safe, therefore stricter requirements are applied to attentiveness, prudence and diligence of the person of a certain profession. Thus, the aim to ensure quality health care services led to the occurrence of artificially constructed legal maximum attentiveness, diligence, prudence and proficiency standards, but in development and application of these standards it often remains not assessed, especially in criminal matters, that "medical practice is too complex to trust in knowledge gained through locally or legally constructed snapshots of reality" [34], as "errors often ... occur in the intersecting social realities of a diverse set of people: patients, families, doctors, nurses, hospital administrators, and the legal community"[35].

[34] Schubert Ch., Winslow G., Montgomery A., Jadalla A. Defining Failure: The Language, Meaning and Ethics of Medical Error, International Journal of Humanities and Social Science, Vol. 2 No. 22 [Special Issue – November 2012: 32.
[35] Ibid.

I.

For more than a decade, the position that people who work in the medical field make errors like everyone else has started to be expressed. Kohn, Corrigan and Donaldson were one of the first, who presented the position that errors are common and cause serious consequences, they presented their insights and research in the well-known paper „To Err is Human“[36]. When it comes to medication errors, it is usually considered that these errors (especially their category *wrong route of administration*) are the most preventable, but also they are the errors which may result in the greatest negative consequences. Below are described two cases of such errors, both of which ended in death of the patients.

Austrian medical resident's case[37]. A 10-month-old baby who was subject to cytostatic therapy was hospitalized in the Oncology Department of the Hospital. To reduce the risk of infections, an antibiotic Cotrimoxazol (*Cotrim-K*, oral administration) was given to the baby for prophylaxis. The precise dosage of medicines is particularly important for babies due to their small weight, therefore orally administered drugs are given to babies not with a spoon but with a syringe (syringe content is injected into the mouth). The Oncology Department used standard syringes for this procedure (the same as those used for intravenous injection). Two additional antibiotics – *Fortum* (400 mg 3 times per day intravenously) and *Refobacin* (a short 40 mg injection 1 time per day) were prescribed to the hospitalised baby because of fever. According to the instructions for use of the antibiotic Refobacin, the patient's blood test is mandatory on the third day of its use. During visitation, the physician A told the resident to take a blood sample and said that Refobacin should be injected 30 minutes after blood collection, and one more blood collection should be made 30 minutes after the injection. The resident started a blood collection procedure according to the physician's instruction. While the resident was carrying out the blood collection procedure, a nurse came to the ward carrying 3.75 ml Cotrim-K-Saft in 5 ml standard syringe with a red retainer; when she saw that the blood collection procedure was in progress, she said that she brought an oral antibiotic (the resident did not turn around or react to the coming of the nurse in any other way), put the syringe on the cabinet and left the ward. The resident completed the procedure, left the ward and returned in about 30 minutes, he took the syringe left by the nurse from the cabinet, and injected the medicine (oral antibiotic *Cotrim-K*) into the baby's vein through a port-catheter believing that the syringe contained *Refobacin*. After the injection, he left the ward. A few moments later the physician entered the ward carrying a syringe with *Refobacin* injection and noticed that the baby was cyanotic, with severely dilated pupils and tight breathing. The baby incurred anaphylactic shock due to intravenous injection of oral antibiotic. The baby died a few hours later in the intensive care unit.

The court recognized the resident guilty of unintentional killing (Article 222 of the Criminal Code of Austria) and noted that he acted roughly recklessly. Being careful and diligent enough, he could and should have realized that he could not use intravenously the syringe filled with antibiotic Cotrim-K-Saft and placed on the cabinet, since the physician instructed him only to take blood, and her explanation that blood had to be collected for two times, and Refobacin had to be injected between those two blood collections could not be understood by the resident as the physician's instruction not only to make the first blood collection, but also to inject antibiotic. The court also noted that the nurse who brought the syringe said that it was oral antibiotic. In addition, she put the syringe on the cabinet, while intravenous medicines are brought in a tray, together with swabs and disinfectant.

[36] Kohn, Corrigan, & Donaldson. To Err is Human: Building a Safer Health System. Institute of Medicine, 1999.
[37] LG Bielefeld, criminal case No. 11 Ns 16 Js 279/11

But the most important the court considered the fact that the syringe had no label with the medicine name. The court noted that the resident should have known that all syringes for intravenous injections had to be labelled. The court considered important the circumstance that the operating model used by the hospital to use standard unlabeled syringes for administering of oral antibiotics was increasing (determining) the risk of errors only when it was making the decision on severity of the punishment.

Lithuanian case[38].An 11-month-old baby was hospitalized in Kaunas hospital for rotavirus, after his blood tests the physician prescribed to inject 40 millilitres of 10 percent glucose solution. In the treatment room, the nurse filled two syringes, as she thought, with glucose solution and went to inject it to the baby. During the intravenous injection, when about 5 millilitres of liquid was injected, the baby writhed and started becoming cyanotic. The nurse discontinued injecting the medicine and cardiopulmonary resuscitation procedure was started, however, the baby died after two hours of intensive resuscitation. The cause of death was asystole induced by hyperkalemia (potassium overdose). Kaunas District Court stated in the criminal case that the nurse, knowing that her work was related to medicines hazardous to human life and health, whose mixing, injection rate or inappropriate or inadequate concentration could directly cause harmful consequences – death or bodily injury, could cause significant property damage to the institution and natural persons, did not carry out her job duties carefully enough, ignored them, and although she did not envisage any specific dangerous consequences, her improper fulfilment of duties allowed them to occur, i.e. the nurse, without making sure that she was filling syringes with the medicines prescribed to the baby by the treating physician (glucose), filled two 20 ml disposable syringes with potassium chloride, and injected at least 7 ml of potassium chloride solution through the catheter inserted in the baby's arm vein, and it caused an acute hyperkalemia to the baby, which complicated to asystole, and the latter caused the baby's death. The Court recognized the nurse was guilty under Article 229 and Article 132(3) of the Criminal Code and sentenced her to four years' imprisonment.

The court did not address the hospital's actions (refrainment from acting), related to storage of medicines and minimization of the risk of errors. The court also did not assess the fact specified by experts that glucose solution was the most commonly administered in the route of drip infusion, and especially intravenous flow injection of 10 percent glucose solution is allowed only under vital indications of severe hypoglycaemia, while the baby did not show its signs. So basically treating physician prescribed an improper route of glucose administration – a drip infusion should have been prescribed instead of an intravenous flow injection. This enables the assumption that even if the nurse had confused the medicines, the baby's life could have been saved. The court considered the nurse the only person to blame and imposed a very severe punishment (for comparison, only a fine was imposed in the Austrian resident's case), and did not assess the circumstances (internal regulations of the hospital assuring different locations for storage of medicines, etc.; potentially excessive prescription of medicines by the treating physician (glucose injections were not necessary; etc.), which also influenced the lethal injection. In the particular case, a guilty person was found and punished, however, the question whether such punishment increased security throughout the hospital and the health care system, whether the measures which really would help to avoid such mistakes in the future have been taken remains unanswered. Unfortunately, the entrenched traditional approach to medication errors, which can be described as "naming, blaming and shaming"[39], does not increase safety in medicine. The

[38] Kaunas District Court, Criminal case No. 1-436-530/2014

[39] Heard G. Errors in Medicine: A Human Factors Perspective. Melbourne: Australasian Anaesthesia. 2005. P 3.

progress and improvement of safety are possible only subject to abandonment of this traditional approach.

In the particular case, a guilty person was found and punished, however, the question whether such punishment increased security throughout the hospital and the health care system, whether the measures which really would help to avoid such mistakes in the future have been taken remains unanswered. Unfortunately, the entrenched traditional approach to medication errors, which can be described as "naming, blaming, shaming and punishing", does not increase safety in medicine. This enrooted perception associating error with non-professionalism, lack of attention and negligence, not only discourages learning from mistakes, but on the contrary – promotes their hiding. As a result, the potential to identify mistakes and learn from them is lost. Only an open and constructive discussion of errors and learning from them allows creating an open learning culture of security (Steckhan, Kettner, 2010). As long as errors are feared (more precisely, the responsibility for errors which may occur is feared) another side effect occurs – „the practice of "defensive medicine", which increases the use of unnecessary tests and procedures and fuels the rise in healthcare costs"[40]. Just only „the establishment of a blame-free, non-punitive environment can obviate this"[41].

In addition, it is essential to note that not only changing the approach to an error is necessary without linking it to "insufficient care" and/or "try harder", but also it is necessary to reduce application of the criminal law in the medical field – after all, "criminalization should be based not only on dangerousness of the assessed and significance of defended legal goodness, but also on the necessity efficiency and economic viability of criminal liability"[42]. As mentioned before, the current system only encourages "defensive medicine". In addition, the damage caused to the patient by an error may be compensated through the mechanisms of civil law. For example, Article 24(1) of the Law on the Rights of Patients and Compensation for the Damage to their Health provides that the damage caused to the patient by the fault of a physician or a care worker shall be compensated in accordance with the procedure established by the Civil Code. Article 6.264 (1, 2) of the Civil Code sets out that an employer shall be liable to compensation for the damage caused by the fault of his employees in the performance of their service (official) duties; for the purposes of this Article, employees are considered to be persons exercising their functions on the grounds of a labour or civil contract and acting under the supervision or in accordance with the orders of the corresponding legal or natural person. Liability of health care institutions to compensation for the damage caused to the patients by the fault of physicians working for those institutions during the provision of health care services is a non-contractual civil liability (Articles 6.283, 6.284 of the Civil Code). The institute of non-contractual civil liability is based on the universal duty to abide by the rules of conduct so as not to cause damage to another by his actions or refrainment from acting (Article 6.263 of the Civil Code). A person who violates this duty, or who by law is responsible for the actions of the person who caused the damage is liable to compensate the damage. Consequently, the injured person can receive compensation for the damage sustained even without criminal law measures, and preventive function as though carried out by criminal law (protect against the damage in the future) may very well be replaced by the open system of medical errors and the development of security systems in medicine.

[40] Sharpe, V.A., 2004. Accountability: Patient Safety and Policy Reform, Georgetown University Press: Washington. P. 276.

[41] Lehmann DF, Page N, Kirschman K, Sedore A, Guharoy R, Medicis J, et al. Every error a treasure: improving medication use with a nonpunitive reporting system. Joint Commission Journal on Quility and Patient Safety, 2007; 33:401–7.

[42] Fedosiuk O. Baudžiamoji atsakomybė kaip kraštutinė priemonė (ultima ratio): teorija ir realybė, Jurisprudencija, 2012, 19(2), 722

Conclusion

So by changing the well-established approach to error as a deplorable thing, by excluding the "naming, blaming, shaming and punishing" concept, and by openly analyzing the errors and improving the system of administration the safety of patients will be guaranteed better than by attempting to seek security by threatening with criminal law sanctions.

References:

Borgwart. Kolpatzik. Aus Fehlern lernen. Berlin: Sprenger Verlag, P. 128.

Fedosiuk O. Baudžiamoji atsakomybė kaip kraštutinė priemonė (ultima ratio): teorija ir realybė, Jurisprudencija, 2012, 19(2), 722

Heard G. Errors in Medicine: A Human Factors Perspective. Melbourne: Australasian Anaesthesia. 2005

Kauno apylinkes teismo nuosprendis No. 1-436-530/2014

Kohn, Corrigan, & Donaldson. To Err is Human: Building a Safer Health System. Institute of Medicine, 1999.

LG Bielefeld, criminal case No. 11 Ns 16 Js 279/11

Lehmann DF, Page N, Kirschman K, Sedore A, Guharoy R, Medicis J, et al. Every error a treasure: improving medication use with a nonpunitive reporting system. Joint Commission Journal on Quility and Patient Safety, 2007.

Schubert Ch., Winslow G., Montgomery A., Jadalla A. Defining Failure: The Language, Meaning and Ethics of Medical Error, International Journal of Humanities and Social Science, 2012. No. 2 (22).

Sharpe V. A., Accountability: Patient Safety and Policy Reform, Georgetown University Press, Washington. 2004.