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INFORMATION POLICY IN THE FIELD OF MEDICAL WASTE MANAGEMENT IN HOSPITALS IN WEST POMERANIAN VOIVODESHIP

Abstract: The aim of this paper is to determine whether hospitals in Zachodniopomorskie Voivodeship, operating in the network of hospitals, have a developed policy for the management of medical waste and whether such a policy is placed on their websites. The authors of the study have analyzed the literature of the subject, legal acts and the results of the Supreme Chamber of Control's audit concerning the management of medical waste. This enabled to formulate the following research thesis – “hospitals operating in the network of hospitals, which receive public funds for medical activity, should develop and implement a policy for the management of medical waste. Such a policy should be publicly disclosed, for example, on the websites of hospitals”. The analysis of the examined hospitals' websites enabled to determine whether the tested hospitals publish information about the management of medical waste and how detailed the published information is.

Key words: hospitals, medical waste, information policy, network of hospitals, websites.

Introduction

The study presents the problems of medical waste management from the point of view of legal regulations applicable in this respect and the previously published results of inspections concerning the correctness of medical waste management, as well as the conducted researches about the information policy of hospitals in West Pomeranian Voivodeship on the management of medical waste.

The work assumed that hospitals operating in the network of hospitals, which receive public funds for performing medical activities, should develop

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and implement a medical waste management policy that ought to be made public – for example, on the websites of hospitals. Information¹ is an ordered and analyzed message, a signal received by the recipient. It is transmitted to the recipient in an appropriate (understandable) form. The recipient reports the need for information in connection with the realization of determined targets. The information² should be accurate, true, easily accessible and relevant to the matter. It should be characterized by an adequate inflow frequency, originality and a proper description of the area of interest. Moreover, it ought to be presented in the right form. Information is the basis of information policy, through which we can understand all decisions and actions of individuals connected with informing the public about selected aspects of the individual's activity. Its main purpose should be to meet the information needs of external recipients, who are understood as natural and legal persons, institutions (public and private). Currently, the Internet is an important place for obtaining information. The majority of public and private entities operating on the market have websites. The content of websites varies from the simplest irrelevant information to very detailed and relevant information about many areas of the entity's activity³. Hospitals (as units of public trust) realizing social goals and using in their activity primarily public funds have websites. On these websites, they publish a lot of information about their activity. The information content of hospitals' websites is different – more or less detailed. Hospitals most often provide information about the scope of their medical activity, prices for their health services, organizational structure, subordinate medical facilities, etc. Information connected with the functioning of the internal audit or management control in the hospital is less frequently presented. Some hospitals publish annual financial reports on their websites.

The main aim of this study is to assess the information policy of hospitals in West Pomeranian Voivodeship operating in the network of hospitals about the medical waste management. This goal was achieved by the collection of information from websites of the hospitals that were selected for the examination.

¹ G. K. Świdorska, *Źródła informacji dla formułowania i realizacji strategii* (w:) *Informacja zarządcza w procesie formułowania i realizacji strategii firmy – wyzwanie dla polskich przedsiębiorstw*, pod red. G.K. Świdorskiej, Difin, Warszawa 2003, p. 52.

² Compare: D. R. Hampton, *Management*, Mc Graw-Hill, New York 1986, p. 708-709, cyt. za G. K. Świdorska, *Informacja zarządcza ...op. cit.* p. 52.

³ Compare: R. Borowiecki, M. Romanowska, (red), *System Informacji Strategicznej – Wywiad gospodarczy a Konkurencyjność Przedsiębiorstw*, Difin, Warszawa 2001, p. 178-179, cyt. za G. K. Świdorska, *Informacja zarządcza ...op. cit.* p. 61.

The concept of medical waste and the method of waste management in accordance with legal regulations

The Act on Waste⁴ defines medical waste as waste generated as a result of providing health services, as well as conducting scientific experiments and researches. The division of medical waste in accordance with the Regulation of the Minister of Environment of 9 December 2014 on the waste catalog is presented in Table 1.

M. Pawełczyk⁵ divides the above-mentioned waste into three groups. The first group includes infectious (dangerous) waste that can cause infectious diseases in humans and animals, because they contain live microorganisms or their toxins. The second group consists of special (dangerous) waste with chemicals and therefore this waste can cause infectious diseases in humans and other living organisms. This waste can affect the contamination of the natural environment. The last group includes other waste, which is not dangerous. The Council Directive 91/689/EEG of 12 December 1991 on hazardous waste defines infectious waste in a similar way⁶. In accordance with the Directive, infectious waste includes substances that contain live microorganisms or their toxins that cause or should cause diseases in humans and other living organisms. I. Roszczyńska⁷ points out that in EU law does not have detailed regulations concerning medical waste. The regulations the management of broadly understood waste, including dangerous waste, which is a part of the European Union's environmental policy⁸. Within the framework of this policy, three strategic objectives have been determined. The first one concerns the elimination of pollution at source, the second – promotion of recycling, and the third strategic objective concerns the reduction of pollutions generated in the process of waste incineration.

⁴ Ustawa z dnia 27 kwietnia 2001 roku o odpadach (Dz. U. z 2018 r., poz. 21).

⁵ M. Pawełczyk, *Odpady medyczne jako przedmiot audytu wewnętrznego w szpitalu*, Zeszyty Naukowe Uniwersytetu Szczecińskiego 718, Finanse. Rynki finansowe. Ubezpieczenia 53, Szczecin 2012, p. 382.

⁶ Dyrektywa Rady z dnia 12 grudnia 1991 r. w sprawie odpadów niebezpiecznych (91/689/EWG) (Dz. U. UE L z dnia 31 grudnia 1991 r.).

⁷ I. Roszczyńska, *Gospodarowanie odpadami medycznymi. Charakterystyka, postępowanie, unieszkodliwianie*, Wydawnictwo Verlag Dashofer Sp. z o.o. Świat profesjonalnej wiedzy, Warszawa 2013, p. 9.

⁸ T. Sadowski, G. Świdorski, W. Lewandowski, *Dotacje U c do gospodarki odpadami medycznymi w Polsce*, Europrimus Consulting Europejskie Centrum Doradztwa, Warszawa 2006, p. 62.

Table 1. Division of medical waste

Code	Groups, subgroups and types of waste
18	Medical and veterinary waste (excluding kitchen and restaurant waste that are not related to health or veterinary care)
18 01	Waste from perinatal care, diagnosis, treatment and medical prevention
18 01 01	Surgical and procedural tools and their residues
18 01 02	Body parts and organs, as well as blood containers and preservatives used to store them
18 01 03	Other waste that contain live pathogenic microorganisms or their toxins and other forms capable of transferring genetic material, which cause or should cause diseases in humans and animals (e.g. infected incontinent briefs, sanitary pads, base coats)
18 01 04	Other waste than waste mentioned in w 18 01 03 (e.g. material or gypsum dressings, bedding, disposable clothing, diapers)
18 01 06	Chemicals, including chemical reagents that contain dangerous substances
18 01 07	Chemicals, including chemical reagents, other than chemicals mentioned in 18 01 06
18 01 08	Cytotoxic and cytostatic drugs
18 01 09	Medicines other than those mentioned in 18 01 08
18 01 10	Waste of dental amalgam
18 01 80	Used peloids after operations performed within the framework of medical activity with infectious properties
18 01 81	Used peloids after operations performer within the framework of medical activity, other than those mentioned in 18 01 80
18 01 82*	Residues from nutrition of infectious patients
18 02	Waste from veterinary tests, diagnosis, treatment and prevention
18 02 01	Surgical and procedural tools and their remains (excluding 18 02 02)
18 02 02	Other waste that contains live pathogenic microorganisms or their toxins and other forms capable of transferring genetic material that cause or can cause diseases in humans and animals
18 02 03	Other waste than those mentioned in 18 02 02
18 02 05	Chemicals, including chemical reagents that contain dangerous substances
18 02 06	Chemicals, including chemical reagents, other than chemicals mentioned in 18 02 05
18 02 07	Cytotoxic and cytostatic drugs
18 02 08	Medicines other than those mentioned in 18 02 07

Source: Regulation of the Minister of Environment of 9 December 2014 *on the waste catalog* (Dz. U. of 2014, item 1923)/Rozporządzenie Ministra Środowiska z dnia 9 grudnia 2014 roku *w sprawie katalogu odpadów* (Dz. U. z 2014 r. poz. 1923).

Individual European countries develop divisions of medical waste on their own. For example, the classification of medical waste, in accordance with the division in Germany, distinguishes three groups⁹. Group A includes waste from administrative facilities that do not pose a chemical and bacteriological threat. Group B consists of waste that can be or is actually infected. This waste includes, for example, used dressings. The waste from this group does not pose a direct epidemiological threat. The last group C includes medical waste, which constitutes the biggest chemical and toxicological hazard. This group consists of postoperative waste and, for example, needles and syringes.

The majority of medical waste is hazardous waste, which can pose a serious threat to life and health of people, animals and other living organisms, as well as the environment¹⁰. Therefore, it is important to deal with medical waste in an appropriate way. This matter is regulated by the Regulation of the Minister of Health on the detailed method of dealing with medical waste¹¹.

According to the Regulation, medical waste is placed in containers or bags that are clearly marked. The process of placing waste in bags is carried out in the place of their formation. Then the waste is subject to preliminary storage. Highly infectious medical waste is collected into external and internal package and stored no longer than 24 hours. Medical waste is stored in a specially designed room or stationary or portable refrigeration device. Both rooms and refrigeration devices must meet certain requirements specified in the Regulation of the Minister of Health. It is worth noting that the internal transport of medical waste from the place where there is generated to the place of initial storage must be carried out with means of transport intended solely for this purpose.

An important issue is the disposal of medical waste. It is regulated by the Regulation of the Minister of Health of 21 October 2016 on the requirements and methods for the disposal of medical and veterinary waste¹². It defines acceptable method for the disposal of medical waste that does not have infectious and medical waste that has infectious properties, conditions for performing medical waste disposal processes, method and scope of monitoring of medical

⁹ S. Baran, R. Turski, *Wybrane zagadnienia z utylizacji i unieszkodliwiania odpadów*, Wydawnictwo Akademii Rolniczej w Lublinie, Lublin 1999, p. 310.

¹⁰ Cf. Cz. Rosik-Rulewska, *Podstawy gospodarki odpadami*, Wydawnictwo naukowe PWN, Warszawa 2008, p. 14.

¹¹ Rozporządzenie Ministra Zdrowia z dnia 5 października 2017 r. w sprawie szczegółowego sposobu postępowania z odpadami medycznymi, (Dz. U. 2017, poz. 1975).

¹² Rozporządzenie Ministra Zdrowia z dnia 21 października 2016 r. w sprawie wymagań i sposobów unieszkodliwiania odpadów medycznych i weterynaryjnych (Dz. U. 2016, poz. 1819).

waste disposal processes, as well as the methodology and frequency of testing for waste generated as a result of disposal of infectious medical waste. It is worth mentioning the Regulation of the Minister of Health of 24 July 2015 on types of medical and veterinary waste, the recovery of which is acceptable¹³. This groups includes some medical waste from perinatal care, diagnosis, treatment and medical prevention. Other medical waste, not listed in the Regulation, is subject to disposal – usually through thermal treatment¹⁴. The thermal treatment of waste is realized only in incineration plants or co-incineration plants. However, it should be ensured that the harmfulness of emissions and waste resulting from this process is as low as possible.

The Regulation of the Minister of Health on the detailed method of dealing with medical waste contains a provision that imposes on the entities providing health services or conducting scientific researches and experiments in the field of medicine the obligation to develop a procedure for dealing with medical waste. This procedure should regulate the process of selective collection, transport and initial storage of medical waste. This applies to the preparation of instruction for workplaces¹⁵.

In accordance with the Act of Waste, medical entities are also obliged to keep records of medical waste generated and transferred for disposal, as well as to prepare reports on the quantities and types of generated medical waste, which was forwarded to voivodeship marshals. Medical waste management is also an element of internal audit, which is a tool used by hospital managers in obtaining an answer to the question about the effectiveness of processes connected with the medical and operational activity of a medical entity¹⁶. Medical waste man-

¹³ Rozporządzenie Ministra Zdrowia z dnia 24 lipca 2015 roku w sprawie rodzajów odpadów medycznych i weterynaryjnych, których odzysk jest dopuszczalny (Dz. U. 2015, poz. 1116).

¹⁴ T. Piecuch, J. Dabrowski, *Conceptual and Technological Project of Municipal Waste Thermal processing Plant for the Middle Pomeranian Region*, Roczniki Ochrona Środowiska (Annual Set The Environment Protection) 16 (2014) p. 7.

¹⁵ M. Kowalska, P. Głuszczyński, R. Biernacki, *Poradnik klasyfikacji i segregacji odpadów powstających w służbie zdrowia, OTZO „3 R”*, Kraków 2003, cyt za. M. Pawełczyk, *Odpady medyczne...* p. 381.

¹⁶ Cf. A. Szewieczek, K. Tkacz-Wolny, *Efektywność kontroli zarządczej w świetle oświadczeń kierowników samodzielnych publicznych zakładów opieki zdrowotnej. Finanse, Rynki Finansowe, Ubezpieczenia*, 2016, 6/1 (84), p. 70-90; E. I. Szczepankiewicz, *The role of internal audit in hospitals*. In: Cost, organization and management of hospitals, J. Stępniewski, M. Bugdol (eds.), Kraków: Jagiellonian University Press, 2010, p. 52-60; E. I. Szczepankiewicz, *Internal audit as a management improvement tool in the healthcare sector units*, Polish Annals of Medicine, 17, 1, 2010, p. 136-148. [https://doi.org/10.1016/S1230-8013\(10\)70015-1](https://doi.org/10.1016/S1230-8013(10)70015-1) (access: 12.02.2017).

agement is effective when the process of identifying, collecting, securing and utilizing medical waste, as well as analyzing the costs related to the process and applying the information policy of medical waste is monitored. The internal audit guarantees the statement whether the management of medical waste proceeds in a manner consistent with the generally applicable laws in this area and with internal hospital regulations.

It is worth mentioning the National Waste Management Plan 2020 developed in Poland, which was adopted by the Council of Ministers of 1 July 2016¹⁷. This document indicates medical waste as hazardous. It recognizes the possibility of preventing the formation of this waste as very limited. In accordance with the published resolution, the amount of medical and veterinary waste produced in Poland in 2013 in relation to 2008 increased by approx. 25.6% (from a value of approx. 35,5 thousand Mg to approx. 44.6 thousand Mg). In 2012, 41315 Mg of hazardous medical and veterinary waste was produced, and 35600 Mg was processed. Infectious medical waste and medicines are neutralized by thermal treatment. In 2013, 2743,3 Mg of medical and veterinary waste was produced in West Pomeranian Voivodeship, and the processing capacity of two incineration plants located in the voivodeship amounted to 1800 Mg. Thus, more waste was generated than could be neutralized. As indicated in the published document, this problem concerns nine voivodeships in Poland. Other voivodeships do not have this problem.

Examination of the correctness of medical waste management by hospitals (report of the Supreme Chamber of Control and the National Waste Management Plan 2020)

Due to the diversity of waste generated in hospitals, its impact on the environment and medical workers, who have contact with this waste, an important aspect of the hospital's functioning is a proper management of medical waste, which concerns:

1. Development of a procedure for adequate segregation of medical waste in compliance with applicable regulations and work safety, their storage and transportation to waste storage or disposal places,
2. Development of a procedure for keeping records of medical waste and reporting in this matter.

¹⁷ Uchwała nr 88 Rady Ministrów z dnia 1 lipca 2016 r. w sprawie Krajowego planu gospodarki odpadami 2020, (Dz. Urz. 2016, poz. 784).

The management¹⁸ of medical waste can be understood as collection, transport, recovery and waste disposal, as well as supervision over these activities and supervision over waste disposal sites.

Despite the importance of the problem connected with the proper management of medical waste, it seems that people, who manage hospitals, often devote too little attention to this issue. This translates into irregularities in the waste management system.

In 2014, the Supreme Chamber of Control¹⁹ carried out an audit aimed at evaluating the system for the disposal of medical waste, and in particular the assessment of the organization of handling with medical waste, their disposal, registration and reporting. The examination covered the course of procedures in the scope of conclusion and performance of agreements with entities that collect waste.

18 medical entities were examined, including 12 hospitals. Two hospitals were selected from each of the following voivodeships: Mazowieckie, Podlaskie, Kujawsko-Pomorskie, Łódzkie, Opolskie and Podkarpackie. In addition to the hospitals, sanitary and epidemiological stations were inspected in each of the above-mentioned voivodeships (one station in each voivodeship).

In the published information, the Supreme Chamber of Control assessed the functioning of the medical waste disposal system for the study area in the period from 2011 to 2013. Irregularities concerned, among other things:

1. Failure to comply with the proximity principle, according to which waste management cannot pose a threat to animals, plants, air and water, induce nuisances caused by smell or noise, have a negative impact on rural areas or places of special natural and cultural importance,
2. Incorrect handling of medical waste, which included segregation of waste, its storage and transport from the place of formation to the place of storage,
3. Unreliable recording of medical waste and provision of incorrect data on thy types and quantities of generated waste in reports.

The Supreme Chamber of Control stated that the irregularities revealed in examined medical entities concerning the medical waste management clearly indicate the ineffectiveness of current control mechanisms. It is worth nothing

¹⁸ I. Skoczko, *Przystosowanie polskiego prawa ochrony środowiska w zakresie gospodarki odpadami niebezpiecznymi i przemysłowymi do wymogów Unii Europejskiej*, Roczniki Ochrona Środowiska (Annual Set The Environment Protection) 4 (2002), p. 427.

¹⁹ „Informacja o wynikach kontroli postępowania z odpadami medycznymi”, Najwyższa Izba Kontroli Departament Środowiska, Warszawa 2014, <https://www.nik.gov.pl/kontrola/wyniki-kontroli-nik/kontrola,13513.html> (access: 06.03.2018).

that the controlled medical entities had procedures for dealing with medical waste, which only in three examined units did not fully comply with the provisions of law related to the handling of medical waste.

According to the Supreme Chamber of Control, the occurrence of irregularities in the handling of medical waste also indicates insufficient training of hospital employees and inadequate supervision.

Furthermore, the Supreme Chamber of Control stated that incorrect recording of medical waste may result in overestimating the mass of waste, and thus – increasing the cost of its disposal, which are borne by healthcare entities. This, in turn, promotes corruption mechanisms. Unreliable recording of medical waste causes mistakes in reports on the quantity and types of generated medical waste. Unreliable preparation of reports results in providing false information about medical waste to voivodeship marshals, who keep databases and plan waste management safe for the environment.

Identification of problems that concern the management of hazardous medical waste was also given in the Regulation of the Council of Ministers published in 2016 on the National Waste Management Plan 2020. The irregularities in waste management, concerning the non-compliance with the principle of proximity, inadequate handling of waste in healthcare entities, i.e. its segregation, classification and recording, have been indicated. Attention was paid to the uneven distribution of waste incineration plants in Poland. The document included a prognosis related to the production of medical waste in the future. It was found that due to the aging society and increase in morbidity (diseases of affluence, e.g. diabetes, allergies), the quantity of producing medical waste may slightly increase. However, it was found that the processing capacity of medical waste incineration plants in Poland is sufficient for waste disposal.

Information system on the management of medical waste in selected hospitals (results of researches)

The study covered websites of hospitals in West Pomeranian Voivodeship that operate in the network of hospitals (in other words – in the PSZ system). As of 1 October 2017, the amount of hospitals operating in the system of Primary Hospital Security of Health Care Services (PSZ) in West Pomeranian Voivodeship was 29. The PSZ system was implemented on the basis of the Regulation of the Minister of Health²⁰.

²⁰ Rozporządzenie Ministra Zdrowia w sprawie określenia szczegółowych kryteriów kwalifikacji świadczeniodawców do poszczególnych poziomów systemu podstawowego

According to the Regulation, hospitals were included to six levels of health protection. The PSZ system consists of hospitals operating as independent public health care institutions, hospitals that operate in the form of limited liability companies, as well as joint-stock companies. Table 2 shows the levels of health protection, which can be related to hospitals in the PSZ system.

Hospitals covered by the study belong to the groups listed in Table 2 and operate as independent public health care institutions, limited liability companies and joint-stock companies. The division of hospitals covered by the examination is presented in Table 3.

Among 29 hospitals, over 65% (19 hospitals) are hospitals operating in the form of independent public health care center, over 34% (10 hospitals) are hospitals operating in the form of limited liability companies, and one hospital operates as a joint-stock company (3.44% of all hospitals). The vast majority of hospitals belong to the first level of health protection in the PSZ (16 of out 29 hospitals), which constitutes 55.17% of all tested hospitals. There are district-scale hospitals that provide health services in, for example, internal diseases, general surgery, anesthesiology and intensive care.

Table 2. Levels of health protection

Protection level	Type of service provider
Level I	Hospitals in a district range, services in the field of e.g. internal diseases, general surgery, anesthesiology and intensive care
Level II	Voivodeship hospitals, services in the field of, for example, orthopedics, neurology, cardiology, anesthesiology, intensive care
Level III	Multi-profile specialist hospitals can provide services in all hospitals treatment areas
Oncological and pulmonology hospitals	They can provide services qualified for the first three levels of hospitals
Pediatric hospitals	Services corresponding to children's diseases
Nationwide hospitals	Created by institutions and medical universities. They can provide services in all hospital treatment areas

Source: B. Zaleska, *Analiza wskaźnikowa narzędziem oceny sytuacji ekonomiczno-finansowej szpitali* (w:) *Zarządzanie organizacją w opiece zdrowotnej. Wybrane aspekty*, collective paper edited by. A. Jakubowska, M. Olkiewicz, Wydawnictwo Uczelniane Politechniki Koszalińskiej, Koszalin 2017, p. 137.

Table 3. Levels and organizational and legal forms of hospitals covered by the study

No.	Hospital level	Organizational and legal form	Number of hospitals	Number of hospitals at a given level
1.	Level I	Independent public health care center	7	16
		Limited liability company	8	
		Joint-stock company	1	
2.	Level II	Independent public health care center	2	2
3.	Level III	Independent public health care center	2	2
4.	Oncological hospital	Independent public health care center	1	2
		Limited liability company	1	
5.	Pulmonology hospital	Independent public health care center	1	1
6.	Pediatric hospital	Independent public health care center	1	1
7.	Nationwide hospital	Independent public health care center	5	5
8.	Total number of hospitals	29	29	29

Source: own study developed on the basis of hospitals' websites.

The second largest group gathers nationwide hospitals (5 hospitals, i.e. 17.24% of all examined hospitals). Hospitals in this group are established by medical institutions and universities and they can provide services in all areas of hospital treatment. Two hospitals belong to the level II – i.e. 6.89% of all hospitals. This level is created by voivodeship hospitals that provide services in the area of, for example, orthopedics, neurology, cardiology, anesthesiology and intensive care. The third level is made up of 2 hospitals (6.89%). As multi-profile specialist hospitals, they can provide services in all areas of hospital treatment. In West Pomeranian Voivodeship, in the PSZ system, there are also 2 oncological hospitals. They constitute 6.89% of all hospitals. There is also one pulmonology hospital. These hospitals can provide services qualified for the first three levels of hospitals. Furthermore, there is one pediatric hospital that provides health services corresponding to children's diseases. The study was connected with the analysis of information content on websites of hospitals and determination whether hospitals provide information on medical waste and how they manage this waste. Table 4 presents documents, which include information concerning (directly or indirectly) medical waste.

Among 29 examined hospitals, only 9 hospitals (31.03% of the sample group) have information on their websites that directly or indirectly concern medical waste. However, it should be noted that none of the examined hospitals has posted information on the medical waste management understood as a process of selective collection, transport and initial storage of medical waste on the website. This does not mean that hospitals have not developed instructions for dealing with medical waste. In the authors' opinion, if such instruction is developed, it should be placed on the websites of hospitals. The problem of environmental protection is a socially important problem and from this point of view, society has the right to information about measures that are taken to minimize the effects of adverse impact on the environment, especially when the unit produces hazardous waste, including the majority of medical waste.

Table 4. Documents of the examined hospitals with direct or indirect information about medical waste

No.	Type of document	Number of hospitals	PSZ level	Organizational and legal form
1.	Announcement about the tender	1	I	Independent public health care center
2.	Quality policy	2	I i III	Independent public health care center
3.	Hospital regulations	1	I	Independent public health care center
4.	Certificate	1	II	Independent public health care center
5.	Environmental policy	1	II	Independent public health care center
6.	Organizational regulations	1	III	Independent public health care center
7.	Management system policy	2	Oncological hospital and nationwide hospital	

Source: own study on the basis of hospitals' websites.

Hospitals that have placed on their websites any information related (directly or indirectly) to medical waste are hospitals operating in the form of an independent public health care centers.

The information content, directly related to medical waste, waste included in the environmental policy, policies of the hospital management system and quality policy. Management policies developed by hospitals included provisions concerning the actions undertaken by hospitals in:

1. Minimizing the impact of actions on the natural environment and ensuring compliance with legal regulations in terms of environmental protection, which applies, *inter alia*, to medical waste,
2. Raising employee's awareness of environmental protection and persuading them to act consciously in order to reduce a negative environmental impact of hospital operations,
3. Using modern technologies that limit pollutant emissions and preventing medical activity against pollutants, especially in the area of medical waste.

The quality policy developed by hospitals includes provisions concerning the realization of this policy. The quality policy is realized, among other things, by caring for the natural environment, preventing and reducing pollution through the performance of rational material management. This also applies to the continuous monitoring of the use of materials and generated waste, in particular medical waste. The environmental policy developed and published by one hospital presents objectives that the hospital wants to achieve through its realization. These goals include:

1. Permanent limitation of emitted pollutions,
2. Meeting of legal requirements in the scope of environmental aspects,
3. Knowledge of environmental policy among hospital employees and identification with this policy,
4. Impact on suppliers in order to improve environmental actions.

The organizational regulations published by one hospital shows the minimization of the negative impact on the environment as one of the goals for implementation by the hospital. One of the hospitals placed on its website the certificate received in 2017, which was connected with the thermal treatment of waste with the provision of adequate quality. Moreover, one of the published hospital organizational regulations determined the scope of duties of the technical and organizational department, which includes the management of medical waste. A website of one of the examined hospitals presents information about the tender concerning the collection and disposal of medical waste below 30 000 EUR.

Conclusion

The medical waste management is one of the most important aspects of the functioning of health care entities, and in particular hospitals, which are a key element in the healthcare system. Researches concerning the information content on the websites of hospitals in West Pomeranian Voivodeship proved that only 9 out of 29 hospitals from the PSZ system placed a little information related to medical waste on their websites. None of the nine hospitals published

the procedure for dealing with medical waste. In the authors' opinion of this publication, hospitals should place such information on their websites. This information ought to be available for patients, potential investors, payers and other entities interested in the hospital's activity. The developed procedure (policy) for dealing with medical waste should include:

1. Terms related to medical waste and legal regulations that regulate waste handling,
2. Classification of medical waste and other waste in the hospital,
3. The method of storing medical waste, as well as marking bags and containers that are used to store waste,
4. Regulations for transporting medical waste,
5. Ranges of duties for employees, who participate in actions related to the medical waste management,
6. Precautions, which should be taken during the handling of medical waste,
7. Devices used for the registration and efficiency of medical waste,
8. Method of dealing with waste recipients,
9. Actions aimed at the reduction of waste production and minimization of the impact of waste on the environment.

In the opinion of the study's authors, it is worth to continue researches connected with the information policy of hospitals on the management of medical waste in other voivodeships in order to perform a comparative analysis that would identify the problem raised in this work on the national scale.

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POLITYKA INFORMACYJNA W ZAKRESIE GOSPODAROWANIA ODPADAMI MEDYCZNYMI SZPITALI WOJEWÓDZTWA ZACHODNIOPOMORSKIEGO

Zarys treści: Celem referatu jest określenie czy szpitale województwa zachodniopomorskiego, które działają w sieci szpitali mają opracowaną politykę gospodarowania odpadami medycznymi i czy jest ona umieszczona na ich stronach internetowych. Autorki opracowania dokonały analizy literatury przedmiotu, aktów prawnych i wyników kontroli NIK dotyczącej postępowania z odpadami medycznymi, co pozwoliło na sformułowanie tezy badawczej, która brzmi: „szpitale działające w sieci szpitali, które otrzymują środki publiczne na prowadzenie działalności medycznej powinny opracować i wdrożyć politykę gospodarowania odpadami medycznymi, która powinna być podana do publicznej wiadomości na przykład na stronach internetowych szpitali”. Analiza stron internetowych badanych szpitali pozwoliła na stwierdzenie czy badane szpitale publikują informacje dotyczące gospodarowania odpadami medycznymi i jaki jest stopień szczegółowości tych informacji.

Słowa kluczowe: szpitale, odpady medyczne, polityka informacyjna, sieć szpitali, strony internetowe.