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SCIENTIFIC DISCUSSION ON NORMATIVE ISSUES OF OCCUPATIONAL HEALTH, SANITARY AND HYGIENIC EPIDEMIOLOGICAL DEMANDS IN PHARMACY ESTABLISHMENTS DURING COVID DISEASES IN THE REPUBLIC OF GEORGIA

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ABSTRACT

Protecting safe working conditions involves the use of ineffective and reliable means of preventing industrial injuries and occupational diseases, technologies, equipment and others. It is natural that the fields, technological processes, etc., are characterized by their specifics and the safety rules should be different for them. In pharmacies, laboratories, training and scientific research laboratories, warehouses, production equipment are subject to daily cleaning. Cabinets in storage rooms should be cleaned as needed, but at least once a week. Wet cleaning of the pharmacy, laboratory/ factory (floor and equipment) before starting work. Only dry cleaning of laboratory / production using disinfectants is not allowed. Waste and rubbish should be collected in special containers with a moving lid and should be removed at least once a day. Hand-washed sinks, toilets and garbage containers should be cleaned, rinsed and disinfected daily. Personnel are required to follow the rules of personal hygiene and industrial sanitation, to carry out the relevant personnel to perform food, smoking, as well as storage of food, tobacco and personal medicines in pharmacies, training and scientific research laboratories and departures. Pharmaceutical establishments do not comply with the hygienic norms of the internal and external environment, physical, chemical and biological factors of the labor process. The facility also does not take into account psychosocial factors related to safety (stress, communication, post-traumatic stress, etc.); Most pharmaceutical establishments (50-60%) do not have a fire board with appropriate equipment, evacuation exit and scheme. Also has no person responsible for the matter; Disobedience and specialist protection/separation facility prior to pandemic were minimal (increased by 99%) during pandemic; The state should create an appropriate legislative and institutional framework; We think this will help transform the existing department into an effective labor inspectorate. The possibility will be created of the institutional capacity of its independence and efficiency, and the law will also provide guarantees for the individual independence of inspectors. Also, the bill should directly refer to the Labor Inspectorate as the body responsible for law enforcement.

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Introduction. The purpose of the labor legislation in Georgia is to regulate the relationship between the employer and the employee through clearly defined legal regulation that excludes the

exploitation of the employee and creates the possibility of work based on human dignity, freedom and self-development [1-2]. Accordingly, the purpose of labor legislation is to regulate private legal relations at the normative level to the extent that it is necessary for the proper social protection of workers [3, 4]. The employer is obliged to provide the candidate with information about the work to be performed, working conditions, contract form, remuneration and legal status of the employee during the employment relationship [5, 6]. The performance of the assigned work is usually subject to organizational regulation and the daily and/or weekly hourly work schedule set by the employer. Under such organizational arrangements, it is important to classify time into work, break, and leisure time [7, 8].

Working time includes the time that an employee must use to fulfill a contractual obligation. Break time is the period of time between working hours, while break time is defined by labor law as leave periods and days off [9]. Overtime work is voluntary, although the Labor Code provides for exceptional cases where overtime work becomes mandatory for an employee. These cases are:- To prevent natural disasters and/or to eliminate their consequences;-Unpaid; To prevent an industrial accident and/or to liquidate its consequences with appropriate compensation [10, 11]. The Labor Code establishes the right of the employer to take paid leave of 24 working days and unpaid leave of 15 calendar days [12]. Depending on the specifics of the work, the Labor Code provides for additional leave for those working in heavy, harmful or hazardous work in the amount of 10 calendar days a year. The list of such works is approved by the order of the Minister for Internally Displaced Persons from the Occupied Territories of Georgia, Labor, Health and Social Protection [13, 14].

The employer is obliged to provide the employee with the safest working environment for health. The need for individual measures to protect and maintain the health of employees is particularly high in some areas of employment [15]. In order to protect the health of employees in the workplace, as well as the importance of the work performed, national legislation provides for cases and rules for mandatory periodic medical examination of an employee at the expense of the employer. Periodic and regular medical examinations are required depending on the content of the activity. With the exception of cases provided for by a regulatory enactment, the employer has the right to determine additional conditions for a medical examination [16, 17].

Working conditions. An important prerequisite for the rational use of employees' working time and, in general, for increasing the efficiency of their work are normal working conditions and the establishment of rational internal rules for work and rest at the enterprise. Work should be carried out in normal, favorable conditions, and when planning a workplace and its technological equipment, it is necessary to take into account the latest advances in technology and technology [18,19]. This significantly helps to reduce staff fatigue, save time, improve staff efficiency and ultimately improve work efficiency and success. Quite common in the West is the so-called. "The theory of human capital". According to this theory, the knowledge and skills of employees are considered to belong to their organization, which generates income. And the costs of acquiring this knowledge (personnel recruitment, selection, salary, adaptation, training, certification, improvement of working conditions) are considered an investment. Although the efficiency of such investments is the highest and, in addition, people are the most important resource for them, there are still records in the educational and scientific literature of these countries that seem to be the least developed, for example, finance, manufacturing, , marketing, materials Management of technical supply [20,21]. In the Georgian realities, only the first steps are being taken in this direction against a very poor background of economic development, wages, employment and living standards. Thus, when it comes to the successful management of an organization, it should in principle be said that limiting investments in human resources, ignoring the factor of trust and respect, inadequate staff motivation, reducing concern and social insecurity by boomerangs return to the development of the company [22, 23, 24].

The International Labor Organization (ILO) was formed in 1919 as part of the League of Nations to protect workers' rights. Later, the ILO joined the United Nations. The UN itself protects the rights of workers.

1. Everyone has the right to work, free choice of work, fair and favorable working conditions and protection from unemployment;
2. Everyone has the right to equal pay for equal work without any discrimination;
3. Everyone who works has a just and favorable standard of living that ensures the dignity of himself and his family and, if necessary, provides other means of social protection;
4. Everyone has the right to form trade unions and join trade unions to protect their interests.

5. Everyone has the right to rest, including reasonable limitations of working hours and paid vacation.

The International Labor Organization has developed international labor standards, which are set out in the Declaration of Fundamental Principles and Rights, which are widely recognized and of particular importance. They are widely used regardless of a country's level of development or ratification of cultural property and related conventions [25, 26].

These standards are composed of qualitative rather than quantitative standards and do not define specific levels of working conditions, wages, or occupational safety and health standards. They are not intended to measure comparative advantage. The main labor standards are human rights, they are recognized in internationally ratified international human rights instruments, including the Convention on the Rights of the Child [27, 28].

Employees' rights in the UK include the right to work, a paid disciplinary process during which they are eligible for escort, daily breaks, paid leave and more. Safety and social resilience include: protecting employees' rights and safe working conditions, preventing human trafficking and eliminating child labor. In pharmaceutical institutions, hygiene standards are required and adhered to. Pharmacy institutions are all institutions in which pharmaceutical activities are carried out. When carrying out pharmaceutical activities under the influence of high-risk factors, possible cases of occupational diseases of an employee may develop [29, 30].

An occupational disease (acute or chronic) develops under the influence of factors that threaten the working environment and the production process, causes a deterioration in his health and/or restriction of his professional ability to work in the short or long term, and is determined by the legislation of Georgia. [31, 32]. Therefore, the specifics of pharmaceutical activities should be taken into account, in particular: the development of a new pharmaceutical product (molecule), the use of various chemicals and technologies, which, in turn, require special precautions. Also, one cannot ignore the necessary characteristics during storage, transportation, delivery, consumption of finished products, and, as a result, the need to comply with sanitary and hygienic working conditions [33, 34].

Related to the pharmaceutical industry: measures related to waste collection, processing, waste disposal, pollution control and other waste management processes. Therefore it is necessary to consider:

1. Sanitary-hygienic characterization of working conditions - physical, chemical, biological factors of the production and/or working environment and the labor process;
2. The permissible norms of chemical substances in the air of the working zone of the pharmaceutical institution shall be used for the hygienic assessment of the working conditions for the following purpose: A) To determine the conformity with the hygienic norms to check the working conditions of the employees and to make a hygienic conclusion; B) To determine the priority direction during the implementation of remedial measures and to determine its effectiveness; C) To create a database at the level of enterprise, field, region, republic; D) To determine the level of occupational risk, to take preventive measures and to justify social protection measures; E) To investigate cases of occupational diseases and poisoning.

ISO – The normative act of the International Organization for Standardization provides:

1. The purpose of labeling and marking hazardous chemicals is to inform the contact persons and the user about the harmful effects of these substances on health and the environment, in order to ensure their safe use;
2. In order to safely treat a hazardous chemical and maintain its consumer properties, the creator/manufacturer shall classify the substance / preparation according to the hazard before submitting it to the state examination and registration application, as well as develop a draft of the mark and label;
3. Each category of hazard classification shall be abbreviated, accompanied by the relevant risk phrase or phrases;
4. If the substance is classified as flammable, sensitizing or hazardous to the environment, only the phrase risk shall be used;
5. If a substance is classified as carcinogenic, mutagenic or toxic, the appropriate abbreviation is used to indicate the category (eg 1,2,3) [28, 29].
6. Hazard classification categories are expressed by the following abbreviations: a) Explosive: E b) Oxidizing: O c) Particularly flammable: F + d) Highly flammable: F flammable: R10 f) Highly toxic: T +

g) Toxic: T h) Harmful: Xn i) Corrosive: C j) Irritant: Xi l) Sensitizing: R42 and / or R43 m) Carcinogenic: Carc. Cat. (1) n) Mutagenic: Muta. Cat. (1) n) For toxic reproduction: Repr. Cat. (1) o) for hazardous environment: N and / or R52, R53, R59.

7. Hazard classification categories are represented by symbols with risk R-phrases and safety S-phrases.

8. The user who carries out the use of hazardous chemicals is obliged to ensure the maintenance of the label and mark on the container.

In order to investigate and study the possible danger, the data are important, in particular the information on the label, which is emphasized in the mentioned normative act. Required:

A) For the substance - trade name, chemical name, synonyms common according to IUPAC and CAS number; B) For the drug - trade name, chemical names of the constituents according to IUPAC, CAS numbers and concentrations; C) State registration number; D) Scope of application; E) Complete information about the manufacturer, importer or distributor of the substance / preparation: name, surname, address, telephone; F) Date of manufacture, expiration date, batch or series number, storage conditions, net, mass; G) Symbols and signs of the relevant classification of danger; H) R-phrases indicating a specific hazard; I) S-phrases denoting security measures; J) Information on first aid.

The same document defines:

1. How to provide the required information on the label: A) For hazardous chemicals used within the country - in Georgian; B) For export chemicals in several foreign languages (English, Russian, German, French, Spanish, etc.); C) The inscription should be easy to understand for the carrier and the professional user.

2. The label shall indicate the prohibition of re-use of packaging or material, as well as recommendations for its disposal and decontamination;

3. The label must be firmly affixed to the packaging container or material as soon as the chemical is packaged;

4. The dimensions of the label are determined according to the volume of the container. The size of the label should not exceed: A) in case of volume up to 3 liters - 52X74 mm; B) in case of volume more than 3 liters and not more than 50 liters - 105X148 mm; C) in case of volume more than 50 liters and not more than 500 liters - 148X210 mm;

5. Each symbol on the label should occupy 1/10 of the surface of the container and at the same time should not be less than 1 cm;

6. Danger symbols shall be displayed in accordance with Annex 3. If the danger is indicated by more than one symbol, then on the label: A) When displaying the necessary E symbol, it is not necessary to display the F, F + and O symbols; B) It is not necessary to display the symbols Xn, Xi, C when the necessary T + or T symbol is displayed; C) it is not necessary to display the symbols Xn, Xi when displaying the necessary C symbol; D) Necessary Xn, display of the symbol Xi is not required when displaying the symbol;

7. Symbols should be drawn in a square on a black, orange-yellow background;

8. Risk phrases for the label are selected according to the hazard criteria. A maximum of six phrases are used to describe the risk. Mixed risk phrases are used when necessary. If a substance is characterized by several categories of hazard the standard phrases should cover all of them;

9. Safety S-phrases for the label are selected according to the risk phrases. A maximum of six S-phrases are usually sufficient to form security measures [35, 36].

From a safety point of view, special importance is attached to the transportation of a pharmaceutical product, which is set out in the same Act as follows:

1. In case of transportation of a chemical substance, the label of the transport container shall include additional information on the number of packed container places placed in the transport container, the net and gross mass of each place, an indication on the normative-technical documentation;

2. If it is practically impossible to label and mark the container of a hazardous chemical due to the size of the container or the nature of the packaging, the relevant information must be reflected in the attached documentation;

3. Requirements for marks include: A) The markings on the label must reflect accurate information about the hazardous chemical; B) The label must be firmly attached to the container. Its

size must comply with the requirements set by the norms. The inscription should be clear and easy to understand; C) Labels with signs and symbols depicted on them must be uniform, including the R-phrases of risk and the S-phrases of safety used in the colors used [37].

This document addresses the safety issues of the pharmaceutical product in pharmaceutical establishments, as well as the cases when the patient uses the pharmaceutical product. The Ministry of Labor, Social Affairs, and the Ministry of Internally Displaced Persons from the Occupied Territories of Georgia (hereinafter referred to as the Ministry) is the Labor Safety Supervision Authority in Georgia. Protecting the health of the employed population, preventing occupational and occupational diseases, promoting a safe environment in the workplace. The beneficiaries of the program are citizens of Georgia. The program provides state-sponsored occupational health research for various services, including state-owned enterprises [38, 39].

Among the main tasks and functions of the mentioned department, the implementation of state supervision is defined:

- Implementation of technical regulations and labor safety mechanism for compliance with working conditions in the field of labor safety requirements, observance of safety rules during the production process and other work environment safety control, in case of violation of which the department is authorized to use the sanctioning mechanism;
- Supervise the observance of labor legislation and the investigation and registration of accidents at the place of employment;
- Take preventive measures against human trafficking in order to prevent forced labor;
- Analysis of labor law, violations of labor and health safety and the causes of industrial injuries, development of proposals and recommendations for their elimination and prevention;
- Review of applications, complaints and proposals within the scope of authority granted by the legislation of Georgia.
- Other rights provided by the statute [14, 17, 21].

By the decree of the Government of Georgia, the state program for monitoring the working conditions was approved, the implementation of which was entrusted to the central office of the Ministry. The target group of the program includes employers who give their prior consent to the monitoring. In addition, under this program, employers receive a notification about the inspection 5 working days before the monitoring procedure. Within the program, the target group is selected and the monitoring sequence is determined. The program does not establish the rules for conducting monitoring and its regulation is linked to the issuance of an individual act of the Minister. Violation of labor safety norms is controlled by a labor safety specialist - a person with appropriate qualifications appointed/ invited by the employer, who ensures the introduction and management of labor safety measures to prevent violations of labor safety norms [11, 12, 15].

According to the Georgia-EU Association Agenda for 2014-2016, Georgia has committed itself to establishing a labor inspection mechanism and institution that would have adequate potential to test working conditions and meet International Labor Organization standards. This issue is also defined in Chapters 13 and 14 of the Georgia-EU Association Agreement, the implementation of which is a future perspective.

Aim and objectives of the research.

The aim of the research was to study the legal-normative basis of labor safety, equipment and sanitary-hygienic requirements of activities in pharmaceutical institutions, to identify their strengths and weaknesses, pros and cons, to reflect a specific problem and to find ways to solve, eliminate and resolve it. In order to achieve the above-mentioned goal, we considered it necessary to determine the quality and compliance of the work space safety of the research facilities with the Organic Law of Georgia on Labor Safety. Assessing the risk of harm to personnel and consumers was considered an existing epidemic. Regarding safety - according to the data of the study period.

Materials and methods.

The information source of the paper is the materials of the survey of pharmacists, international economic journals, reports of the Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs, statistical collections of the State Department of Statistics, Georgian laws, bylaws and other legal acts.

In general, the subject of research was the Georgian pharmaceutical market, which creates a danger not only for consumers but also for employees. The objects of research are pharmacies operating in the market, pharmaceutical companies, pharmaceutical companies, regulatory bodies and employees working there.

Based on the existing theoretical foundations of occupational safety, we considered it necessary to identify the methodological and practical issues, the set of materials from which we selected the objects of research.

The 2 types of questionnaires for pharmacists were selected. The questionnaire, on the one hand, considers whether there is a regulatory legal framework on labor safety in Georgia and, on the other hand, whether all the requirements provided by the legal framework are met, to what extent they comply with the requirements and standards.

Through this questionnaire, we focused on the following key issues:

- What information do pharmacists have about occupational safety, including sanitation?
- Is labor safety in pharmaceutical institutions regulated in Georgia;
- Is there a legal normative basis for sanitary requirements;
- If regulated, then how much is actually done in pharmaceutical establishments;
- Whether employees are provided with information on safety rules when hired and whether there is an appropriate entry in the employment contract.

As a research method, we used specific quantitative and qualitative studies, based on the results of which we drew some conclusions and developed recommendations.

Results and discussion:

The target segment of the research was 5 objects,

➤ 2 of them were pharmaceutical factories:

- GMP Ltd;
- Neopharm Ltd.

➤ 2 Drugstores

- Pharmacy PSP Ltd
- Aversi-Pharma Ltd

➤ And the regulatory body

Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia, LEPL Agency for Regulation of Medical and Pharmaceutical Activities.

The answers to each question from each of the five objects are presented in summary form (we did not consider it necessary to present the results separately at this stage). With this we tried to present an overall picture of the data actually available. The survey was conducted with a pre-compiled questionnaire, the anonymity of the respondents was protected.

The start date of the study was October 2019, which lasted until May 2020. Thus, the data were collected, which we conditionally divided before the Covid-19-related contraction (February) and during the Covid-19 activation period. In both cases, due to the current situation, we used the same topical questions. Accordingly, an average of 142 respondents (from all five facilities) were interviewed. The answers are presented with two data. All the first diagrams presented are data up to Covid-19. Second, even the data obtained during Covid19.

Table 1. Q 1. Is labor safety regulated in Georgia?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	30.7	43.9	Yes	74.6
No	25	5.5	No	19.5
I do not know	44.3	38.4	I do not know	5.9

The data show that 44.3% of respondents were not informed about labor safety regulations in Georgia. And, 25% thought that security was not regulated at all. However, it should be noted that during the pandemic, the survey was conducted again and 74.6% of respondents believe that occupational safety is regulated by law. We also note that the need for labor safety regulation is growing, accounting for 43.9%. See Table 1.

Table 2. Q 2. Do you know the law on labor safety?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	34.8	33.8	Yes	68.6
No	65.8	43.4	No	31.4
I do not know	-	-	I do not know	-

The answers to this question show that if 34.8% knew about the Labor Law of Georgia before the pandemic, the developed situation necessitated knowledge with a difference of 33.8%. See Table 2.

Table 3. Q 3. Is labor safety regulated in pharmaceutical institutions?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	30.3	40.0	Yes	70.3
No	33.1	11.9	No	21.2
I do not know	36.6	28.1	I do not know	8.5

The data show that 30.3% of the respondents did not know about the regulation of occupational safety in a pharmaceutical facility before the pandemic. In the conditions of the pandemic, the interest in this direction increased by 40.0% and also the number of respondents who were unaware decreased from 36% to 28.1% from 8.5%, which somehow indicates a necessary tendency for self-development. See Table 3.

Table 4. Q 4. Do you know the legal normative based on sanitary requirements?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	41.8	31.9	Yes	73.7
No	58.2	31.9	No	26.3
I do not know	-	-	I do not know	-

The answers to the question about the degree of informativeness about the sanitary requirements of the legal normative base in pharmaceutical institutions do not look very good. The data show that it seems that all respondents are familiar with this issue, but it seems that the current situation also played a role here and the degree of improvement of knowledge amounted to - 31.9%. See Table 4.

Table 5. Q 5. Are sanitary requirements regulated in pharmaceutical facilities?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	32.4	45.6	Yes	78
No	34.5	17.6%	No	16.9
I do not know	33.1	28	I do not know	5.1

Unfortunately, 31.1% of respondents did not have information about the regulation of sanitary requirements. In this regard and 34.5% believed that it was not regulated. But in a re-survey, informatics increased by 45.6%, with 78% believing it to be regulated. The number of those who did not know decreased by 28% to 5.1%. See Table 5.

Table 6. Q 6. On the territory of Georgia, is there any registration of occupational disease at work with the existing high-risk, severe, harmful hazardous conditions?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	41.8	9.0	Yes	50.8
No	25.5	0.8	No	26.3
I do not know	32.6	9.7	I do not know	22.9

On this question, we think that the level of informatics is low and it should also be noted that before the pandemic and during the pandemic, interest in this area changed by only 9.0%. There are small gaps between the responses of respondents who do not know whether accounting is taking place. See Table 6.

Table 7. Q 7. Did the employer introduce you to the rules of labor safety when hiring you?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	49.3	22.7%	Yes	72
No	50.7	22.7	No	28
I do not know	-	-	I do not know	-

Interest in hiring employers to learn about occupational safety rules increased from 49.3% to 72% to 22.7%. Respondents who did not know and were not informed when hiring accounted for 50.0% which decreased by 22.7% and amounted to 28%. It should be noted that a high rate would be high on all of the above questions to maintain a high degree of information on all occupational safety regulations when hiring. We think that this information is important and should be taken into account. See Table 7.

Table 8. Q 8. Is there occupational safety at your workplace?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	48.9	30.8	Yes	79.7
No	51.1	30.8	No	20.3
I do not know	-	-	I do not know	-

It is noteworthy that 48.9% of respondents in the workplace believe that occupational safety is protected and 51% state that it is not protected, which changed significantly during the pandemic and increased by 30%. We think more attention is needed in this direction. See Table 8.

Table 9. Q9. Is the essence of your job a labor safety specialist?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	39.4	12.3	Yes	51.7
No	28.2	4.9	No	33.1
I do not know	32.4	17.1	I do not know	15.3

The urgency of this question has increased during the pandemic, but the respondents' answers are not in full compliance and a shortcoming has been identified. It is estimated that 51.7% of the institutions are security specialists. And the difference between pandemic and pandemic time is only 12.3%. See Table 9.

Table 10. Q 10. Are you aware of the health risk factors in your workspace?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	49.6	37.6	Yes	87.2
No	50.4	37.6	No	12.8
I do not know	-	-	I do not know	-

It is unfortunate that 50% were unaware of the existence of health hazards in the workplace and the degree of interest in information during the pandemic changed by 37.6% to 87.2%. It should definitely be noted that pharmaceutical activity is associated with life-threatening substances. And especially if the touch is long. See Table 10.

Table 11. Q 11. Is the compliance of the production environment and the physical, chemical and biological factors of the labor process with the hygienic norms of your facility?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	44.7	11.2	Yes	55.9
No	22.7	6.1	No	28.8
I do not know	32.6	17.3	I do not know	15.3

According to the answers to this question, there is no favorable situation in the pharmaceutical facility in this regard, the need for permanent identification of health hazards in the workplace has been identified. See Table 11.

Table 12. Q 12. Is there an evacuation board/drawing in your workspace?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	62.4	32.5	Yes	94.9
No	37.6	32.5	No	5.1
I do not know	-	-	I do not know	-

Before the pandemic, 62.1% said that during the pandemic - 94.9%, according to the survey results, during the pandemic, the number of medical institutions where the evacuation board was posted increased by 32.5%. It is known that the evacuation board is a plan of the floors of a building (pharmacy), which shows the evacuation exits, rescue facilities and their locations, etc. The spread of the evacuation board in the pharmacy was due to the sharply increased number of patients in pandemic conditions and the stressful environment created by the situation caused the pharmacists to lose attention, thus increasing the risk of harmful events (flammable substance ignition, fire hazard, etc.). See Table 12.

Table 13. Q 13. Do you think that all workplaces should have the appropriate safety requirements? (Fire extinguisher, hood, alarm, etc.)?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	73.2	20.8	Yes	94
No	26.8	20.8	No	6
I do not know	-	-	I do not know	-

Prior to the pandemic, 26.8% of respondents thought that appropriate safety precautions were not necessary in the facility, however, the current situation changed the majority view on this issue and 94% of respondents after the pandemic noted the need for appropriate security equipment, which was completely logical. The quarantine and isolation declared during the pandemic led to a change in the usual rhythm of life before adapting to the existing situation, people had to deal with a situation that was foreign and unusual to them, and mistakes were often made at high risk of adverse events. There has been an increase in rescue services, fire and emergency medical services and, consequently, continuous work in a busy schedule. All this made it necessary to place appropriate safety equipment in the workplace to be able to respond in a timely manner to the situations created. See Table 13.

Table 14. Q 14. Do you think the institution should take into account psycho-social factors (stress, communication, post-traumatic stress)?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	66.2	16	Yes	82.2
No	19	2.1	No	16.9
I do not know	14.8	13.9	I do not know	0.9

Almost all respondents to this question state that psycho-social factors should be taken into account in the institution. And positive responses, i.e. necessity before pandemic and pandemic time difference was 16%. Difference (66.2% before pandemic and 82.2% during pandemic). But it should also be noted that 33.8 (19 + 14.8) does not know the psycho-social factors should be taken into account in the institution. See Table 14.

Table 15. Q 15. Do you think if it is necessary to teach labor safety rules as a discipline?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	84.5	13	Yes	97.5
No	15.5	13	No	2.5
I do not know	-	-	I do not know	-

Quite interesting answers to the question of whether safety rules need to be learned. In both cases, the difference between the responses of the respondents is small and 13%. Nearly 90% believe

that occupational safety needs to be taught. And as far as I know to date this issue is included in the Pharm Case and Organization and Economics curriculum. See Table 15.

Table 16. Q 16. Is there a dezo-barrier in the pharmaceutical facility / pharmacy?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	63.4	36.5	Yes	99.9
No	36.6	36.5	No	0.1
I do not know	-	-	I do not know	-

It is noteworthy that before the pandemic, 36.6% of respondents reported that there were no dezo barriers in pharmacies. The results of the survey differ significantly from the data obtained during COVID-19 infection. 99.9% of respondents confirm that there are dezo barriers in pharmacies. See Table 16.

Table 17. Q 17. Are there safety / separation glasses at pharmacy counters?

Before Covid-19 (%)		Differences (%)	During Covid-19 (%)	
Yes	75.2	23.5	Yes	98.7
No	24.8	23.5	No	1.3
I do not know	-	-	I do not know	-

In this case, the protective glasses at the pharmacy counters, or the specialist and patient separating glasses mentioned above, were significantly increased during the pandemic. But more than 23% of respondents think they do not know. See Table 17.

Conclusions.

Based on the study of the problems of this issue and the results of the research, we can draw the following conclusions:

- At present, the legal-normative base of labor safety, equipment and sanitary-hygienic requirements in Georgia creates a safe environment for activities in pharmaceutical establishments, the permanent control of compliance with the norms of which guarantees full protection for those in contact with the pharmaceutical product;
- We believe that the right, legal approach, strict control and state policy in the field of drug trafficking are a prerequisite for creating a safe environment. Most importantly, despite the interests of the owners of the Georgian pharmaceutical industry and modern marketing approaches, the safety of the population and employees remains a priority;
- Evaluation and analysis of the data obtained from our research suggest that there is a need to tighten and control safety regulations in the pharmaceutical facility;
- 44.3% of respondents are not informed about labor safety regulations in Georgia;
- More than 33% of respondents are unaware of the regulation of occupational safety in a pharmaceutical facility;
- Low legal-normative base and level of awareness on sanitary requirements in pharmaceutical institutions;
- 50% of respondents were unaware of the presence of potential or existing health hazards in the workplace.
- Pharmaceutical establishments do not comply with the hygienic norms of the internal and external environment, physical, chemical and biological factors of the labor process. The facility also does not take into account psychosocial factors related to safety (stress, communication, post-traumatic stress, etc.);
- Most pharmaceutical establishments (50-60%) do not have a fire board with appropriate equipment, evacuation exit and scheme. Also has no person responsible for the matter;
- Disobisibility and specialist protection / separation facility prior to pandemic were minimal (increased by 99%) during pandemic;
- 97% of respondents believe that labor safety should be taught in all its characteristics.

Recommendations.

Based on the analysis of the literature, the current situation and the results of the research, we have made the following recommendations:

- Healthcare is the area of activity that is most strictly regulated by the state. Today, the health care system, which includes all departmental and sectoral levels of the state economy, is not only a combination of medical-prophylactic, rehabilitation and recovery institutions, but also it is closely connected with ecology, labor protection, social programs, etc.
- One of the most important functions of health is to promote and restore the balance and harmony of individual and public health. We think we need:
 - Expand the scope of the draft law on labor safety and extend it to all places of employment, without exception;
 - Equip the Labor Inspectorate with an unconditional and free access to the places of employment, which implies the authority of the mechanism, by its own decision, to carry out inspections of the places of employment without the prior permission of the court;
 - The Law of Georgia on Labor Safety envisages an appropriate system of sanctions, including the proper rules for the application of sanctions and adequate amounts of fines, which will have both preventive and responsive effects;
 - The state should create an appropriate legislative and institutional framework; We think this will help transform the existing department into an effective labor inspectorate. The possibility will be created of the institutional capacity of its independence and efficiency, and the law will also provide guarantees for the individual independence of inspectors; Also, the bill should directly refer to the Labor Inspectorate as the body responsible for law enforcement.

REFERENCES

1. Technical Regulation on Fire Safety Terms and Conditions, 2011, Annex №1
2. Labor Code, Minister of Labor, Health and Social Affairs of Georgia; Article 17.1.
3. N. Sulashvili, M. Beglaryan, S. Kocharyan, N. Gorgaslidze; Scientifically Study Of Prospects of Modern Scientific Achievements And Research Challenges of Pharmacists Occupational Features In Pharmaceutics And Medicine; Удк 615.1:339.188 ISSN 2415-8593 Materials of IX International Scientific-Practical Conference- "Management And Marketing In The Modern Economy, Science, Education and Practice".Ministry of Health of Ukraine; Ministry of Education and Science of Ukraine; Ukrainian Marketing Association, National Pharmaceutical University of Ukraine,Department Of Pharmaceutical Management and Marketing. March 18, 2021, Kharkiv. Pp:26-41.
4. Julakidze E. Fundamentals of Management, Kutaisi, Khandzta Publishing House, 2013.Ashbourne Eide, Katharina Krause, Alan Rosa, Economic, Social and Handbook of Cultural Rights , Second Revised Edition, p. 263. 2 Ibid., P. 268.
5. European Commission - EudraLex - Volume 4 - Good Manufacturing Practice (GMP) guidelines; 2017.
6. FDA - Food and Drug Administration. 2018.
7. ICCCS-International Confederation of Contamination Control Societes, 2014.
8. Institute of Environmental Sciences and Technology - IEST-RP-CC023- "microorganisms in cleanrooms", 2016.
9. Institute of Environmental Sciences and Technology - IEST-RP-CC027 – "Personnel practices and procedures in cleanroom and controlled enviroments"; 2018.
10. ISO - International Organization for Standardization. 2020.
11. Resolution N38 of the Government of Georgia of 5 February 2015 "On the Approval of the State Program for Monitoring Labor Conditions" 189 Ibid., Article 3; 191 Ibid., Article 3.3.
12. Order N147 / N of the Minister of Labor, Health and Social Affairs of Georgia of May 3, 2007 "On Approval of the List of Hard, Harmful and Dangerous Jobs"
13. Order N01-10 / N of the Minister of Labor, Health and Social Affairs of Georgia of April 21, 2015, Article 2.1.
14. N. Sulashvili, M. Beglaryan, N. Gorgaslidze, S. Kocharyan, N. Chichoyan; The Scientific Discussion of the Features of Pharmaceutical Occupational Principles Adjustment, Challenges, Perspectives and Innovations; Tbilisi State Medical University, Faculty of Public Health; Conference Book; of the First Interanational Conference "Future of Health Care in the 21 Century", Tbilisi-2021; Pp:108-135.
15. Order N215 / N of the Minister of Labor, Health and Social Affairs of Georgia of July 11, 2007 "On the List and Approval of the Rules for Compulsory Periodic Medical Examination of the Employee at the Employer's Expense". 195 Ibid., Annex N1, first paragraph.
16. Retrieved from <http://www.matsne.gov.ge> 30016007010003017653, 2008, Article 5-6.
17. Retrieved from <http://www.matsne.gov.ge> 30016007010003017653, 2008, Article 5.
18. PHSS-Pharmaceutical Regulation And Pharmaceutical Science. 2019.

19. TOM PETERS RE-IMAGINE! October 6, 2003 Edition.
20. Victor H. Vroom Expectancy Theory, Encyclopedic Dictionary.
21. William L. ("Bill") White "Cleanroom Technology" 2008 Edition.
22. Ejibadze O. The Future of Management, Electronic Journal "Social Sciences", 2011, №2, p.
23. Markozashvili N. Human Relations Ethics in Organization - Part I; 2014.
24. Markozashvili N. Trust. Magazine - Business: People, Methods, Strategies. March, 2007, №1, p. 39-44.
25. Journal - Business: People, Methods, Strategies. Tbilisi, 6 (35), 2010., p. 24.
26. Magazine - Business: People, Methods, Strategies. October, 2007, №7, p. 47-50.
27. Ramishvili B., Strategic Management, Chapter I. The Essence and Importance of Strategic Management, Tbilisi, 2013.
28. Civil Code, Minister of Labor, Health and Social Affairs of Georgia 2017; Article 12.
29. N. Sulashvili., M. Beglaryan., N. Gorgaslidze., S. Kocharyan; Peculiarities of Priorities and Challenge of Pharmaceutical Sciences to Be Considered in Improvement of Regulation Issues of Pharmacists Profession; ISSN 1987 – 8826 Nano-Studies; Nano Studies 2020, № 20; Nano Studies is an annual International Scientific Journal; Nano Studies' topics include Nanoscience and Nanotechnology, and related problems of Physics, Chemistry, and Materials Science; Retrieved from <http://www.nanostudies.org/> Nano Studies, 2020, №20, Tbilisi-Georgia, Pp 149-162.
30. Civil Code, Minister of Labor, Health and Social Affairs of Georgia 2017; Article 5.6.
31. Law of Georgia on Fire Safety 12.05.1998.
32. Law of Georgia on Drugs and Pharmaceutical Activities, 1997.
33. Resolution №650 of the Government of Georgia of December 2, 2014 "On Approval of State Health Care Programs for 2014".
34. Retrieved from <http://www.matsne.gov.ge> 30016007010003017688, 2009, Appendix 1, 2, 3
35. N. Sulashvili, M. Beglaryan N. Gorgaslidze; The Higher Educational Challenges, Recent Pharmaceutical Professional Issues and Occupational Specification of Pharmacists In Georgia; УДК 615.1:339.188 ISSN 2415-8593 Materials of IX International Scientific-Practical Conference- "Management and Marketing In The Modern Economy, Science, Education And Practice". Ministry of Health Of Ukraine; Ministry of Education And Science of Ukraine; Ukrainian Marketing Association, National Pharmaceutical University Of Ukraine, Department of Pharmaceutical Management And Marketing. March 18, 2021, Kharkiv-2021. Pp 53-68.
36. Van Mil J. F., Schulz M., Tromp TFD. Pharmaceutical care, European developments in concepts, implementation, teaching, and research: a review // Pharm World Sci. 2014;26(6); pp. 303–321.
37. N. Sulashvili, M. Beglaryan, N. Gorgaslidze; Pharmacist Vocational Features, Regulations Framework and Profession Enhancement Challenges of Pharmaceutics. Caucasus Journal of Health Sciences and Public Health; E ISSN 2449-2450; ISSN 2449-2647; The University of Georgia Publishing House. www.caucasushealth.ge; Official Journal of the University of Georgia and Iv. Javakhishvili Tbilisi State University with Support of the Arctic University of Tromsø/Norway. Volume 4, Supplement 8, July 20-24, 2020; Pp 31-36.
38. Michael Ira Smith, Albert I. Wertheimer, Jack E. Fincham; Pharmacy and the US Health Care System; Pharmaceutical Press // 4th Revised edition (April 15, 2013); pp. 402-426.
39. International Pharmaceutical Federation (FIP). Continuing Professional Development/Continuing Education in Pharmacy // Global Report 2014. The Hague: International Pharmaceutical Federation; 2014.