

Pharmacy in Latvia during the first Soviet occupation (1940-1941)

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The first period of the independent state of Latvia lasted from 1918 to 1940. During this period, pharmacy in Latvia had reached a high level of development. The study covers the period after the loss of independence, when the beginning of World War II marked a major crisis in the development of pharmacy in Latvia. The aim of the study was to compile and systematize information available in published and unpublished sources on the impact of the Soviet occupation (1940-1941) on pharmacy in Latvia, which has not been studied before. The main idea of the study was to find evidence that the Soviet occupation decreased the development capacity of Latvian pharmaceutical industry and narrowed its development opportunities. At the same time, the study reflects part of the general political, ideological and economic environment in Latvia over that period. The study is retrospective and descriptive. Materials from Latvian State Historical Archives and the National Archives of Latvia, and publications from the 20th century press of Latvia were used in the study. In one year, the Soviet system attempted to aggressively transform Latvian pharmaceutical industry to match the USSR standards. This meant the destruction of the capitalist system and the free market, as well as the introduction of centralised management. The radical changes were poorly organised and unsuitable candidates were appointed to positions of responsibility. There is evidence that pharmacy in Latvia experienced complete chaos during that period: private enterprises were nationalised, the number of pharmacy professionals decreased, and medical products from abroad were not supplied to the Latvian market. The Latvian population was rescued from total lack of medications by the last major medication purchase from Germany and the Netherlands shortly before the occupation. All the USSR actions in the pharmaceutical industry were coercive. With the occupation of Nazi Germany in the summer of 1941, the Soviet functionaries left the industry. However, in 1945, during the second occupation, the previous procedures were renewed and their results strengthened. It leads to the conclusion that the Soviet political system had an adverse effect on the development of pharmacy in Latvia.

1. Introduction

The first period of an independent state of Latvia lasted from 1918 to 1940. Over that time, Latvia has developed its national pharmaceutical education system, pharmaceutical legislation to govern the operation of pharmacies and property rights; the country has issued its national pharmacopoeia and maintained rapid expansion of its network of pharmacies and pharmaceutical enterprises. At the onset of World War II, the situation in the pharmaceutical industry of Latvia was heavily affected by political developments provoked by the interests of major countries. On June 17, 1940, Latvia was incorporated into the Soviet Union. Every domain of the national economy was marked for restructuring in order to comply with the practices adopted in the USSR.

From the research perspective, this is a very complicated period, it is difficult to find reliable sources; important evidence has been destroyed during the revision of archives in the second occupation. The materials to be used are fragmentary, mostly containing the superficial information, and therefore, there is no comprehensive study about this period that could be applicable to pharmacy. The aim of this study was to summarise and systematise the information available through published and non-published sources in the influence of the Soviet occupation regime (1940-1941) on the pharmaceutical industry in Latvia.

2. Investigations, results and discussion

The study is retrospective and descriptive. A historical genetic method was used to present information that helped to reconstruct

and describe the chronological changes in the aforementioned period. The study uses materials from the Latvian State Historical Archives (LNA LVVA) and the National Archives of Latvia (LNA LVA), publications from the Latvian printed publications of the 20th century "Cīņa" (struggle), "Darbs" (labour), "Padomju Latvija" (Soviet Latvia).

2.1. Establishment of the chief institutions according to USSR standards

According to the Constitution of the Latvian Soviet Socialist Republic (LSSR), the Health Department of the Latvian Ministry of National Welfare was substituted by the newly-founded People's Commissariat for Health Protection (Latvijas Padomju Sociālistiskās Republikas konstitūcija 1940), which was provided with further supervision and governance of the pharmaceutical industry in Latvia in line with orders and instructions from Moscow.

Latvian physician Emīls Planders (1906-1983) was appointed as the People's Commissar for Health Protection (Latvijas PSR Augstākās Padomes prezidija lēmums par valdības dažu locekļu apstiprināšanu 1940). However, he was somewhat eclipsed in terms of prominence and political activity by his deputy Mihails Jofe (1898-1979), a doctor of Jewish ancestry. Mihails Jofe had been a member of the underground Latvian Communist Party (LCP) since 1936 and had served a number of short prison sentences for pro-communist activities (Bleiere 2009). The new power structures were generally assembled in line with the principle of appointing Latvians to the Council of People's Commissars and to every

Commissariat. The percentage of ethnic Jews in state government structures was rather small; however, the domain of health and pharmacy was one of those few where Jews held high office (Bleiere 2009).

During the independence period, there was a Pharmacy Board – an administrative institution directly subordinated to the Health Department of the Ministry of National Welfare. Its key responsibilities were to keep records on pharmacies, chemical and pharmaceutical enterprises, medication storage facilities and pharmaceutical personnel, to oversee the procurement and import of medications, to monitor drug advertising, and to ensure compliance with the laws, orders and regulations in the domain of pharmacy (Dzirne 1944a). Following the dissolution of the Pharmacy Board on October 1, 1940, these duties were handed over to the Chief Pharmacy Directorate (CPD), structured in accordance with Soviet templates and entrusted with supervision over all pharmacies and pharmaceutical personnel in Latvia. The CPD then went on to oversee the nationalisation of pharmacies, the appointment, dismissal and relocation of pharmaceutical personnel, and to issue various orders and monitor the availability of medications. The operation of the newly founded CPD entities was heavily complicated and bureaucratic; it employed three times more employees than its predecessor, the Pharmacy Board (Dzirne 1944a).

The Pharmacists Society of Latvia was also dissolved, superseded by the Labour Union of Pharmacists. All pharmaceutical personnel, with no exceptions, were forced to join the Labour Union. Within a short period of time, the Labour Union of Pharmacists incorporated about 3000 people into its ranks – from pharmacists, pharmacy assistants and pharmacy students to druggists, cosmeticians and other employees of pharmaceutical enterprises (Darbs farmaceitu arodbiedrībā 1940). Core responsibilities of the Labour Union included political education of the personnel, organisation of their leisure time and provision of the Russian language courses. The Labour Union also held meetings for pharmacy managers to explain the duties and rights instituted by the new government. The union also published a news bulletin, which served as a means of propaganda, slandering the former system and emphasising the positive aspects of the new Socialist setup: “The news bulletin covers and discusses the details of interior life of the Labour Union of Pharmacists, criticises the petty-bourgeois trends displayed by some apothecaries through articles and caricatures and clearly sets the goals and objectives for pharmacists in a Socialist society” (Farmaceitu arodbiedrības sienas avīzes atklāšana 1940).

2.2. Profiles of directors of the Chief Pharmacy Directorate

The Chief Pharmacy Directorate (CPD) organised the pharmaceutical industry in Latvia in accordance with the principles set by the Soviet government. From 1940 to summer of 1941, the Directorate was headed by two directors in succession.

On October 1, 1940, Mihails Karštets (born 1910), a pharmacy assistant of Jewish origin, was appointed as the director of the CPD (Latvijas PSR Tautas Komisāru Padomes sēde 1940. gada 30. septembrī 1940). He was awarded the degree of a pharmacy assistant upon graduation from the University of Latvia in 1932, and headed a small rural pharmacy for a short period of time before assuming the office of CPD director. M. Karštets had mediocre professional experience, and had not been a well-known person in the pharmaceutical industry at the early stages of his career. However, after the Bolsheviks came to power, he also assumed a number of other prominent positions. For instance, by order of the People's Commissar for Trade, he was appointed as the Commissioner for the pharmacy, petroleum product, chemical and pharmaceutical factory industries, in reliance upon the Law on Government Supervision over Economic Enterprises (Tirdzniecības tautas komisāra 11. Rīkojums 1940). The legal aspect of this law was explained as follows: “In order to prevent the possibility of speculation in trade and industry, and for the purpose of ensuring and enhancing the normal course of development of the national economy of the LSSR, the Government decides on establishing government control over economic enterprises” (Likums par saimniecisko uzņēmumu valsts uzraudzību 1940). M. Karštets

used to be the commissioner for a number of enterprises: chemical and pharmaceutical laboratory “Pharmakon O. Baltakmens”, purchasing company “Farma” and the company “Eikert, Marshal & Co” (Iecelts pilnvarnieks 1940). His name was also mentioned in connection with the establishment of the Labour Union of Pharmacists (Jaunās arodbiedrību organizācijas komitejas stājušās darbā 1940).

M. Karštets retained his position as the director of CPD for a little bit longer than six months. By order of Mihails Jofe, he was dismissed from the office of the CPD director in March 1941 (Jofe 1941). The dismissal order cited a number of reasons: Analysis of the operations of the CPD management had revealed neglect and a whole series of violations, which caused managerial and logistical problems with medications and other medicinal products; apart from that, no proper control over the operation of pharmacies had been established. The order pointed out the insufficiency of stocktaking efforts to control the amounts of medications and other materials in warehouses and pharmacies, also the instructions on various issues of work, reporting and records management were disregarded or fulfilled improperly, which misled the People's Commissariat for Health Protection. One of the faults was identified as a “mechanical” approach of the CPD to the appointment of officers (Jofe 1941).

It is to be supposed that M. Karštets had no sufficient experience for this responsible position. In 1941, he was evacuated to Russia and settled in Moscow (Vatere 1997a). Nothing is known about the further course of his life.

The next appointed head of the CPD was the Jewish pharmacist Hackels Vasermanis (1909-1996) (LNA LVA 1941). He had higher pharmaceutical education, having graduated from the Pharmacy Department of the University of Latvia in 1934 (LVA LVVA 1934). After serving as director of the CPD for less than 4 months, he fled to Russia in 1941 as the German forces were approaching Latvia (Vatere 1997b). Upon leaving Latvia, he and his two Jewish colleagues also took valuable medications from the CPD medical products warehouse in Old Riga to Russia. Later, on July 2, 1941, an inventory report was drawn up in respect of this incident, which listed all the medication names, doses and amounts. The bulk of the removed medications consisted of narcotic substances, e.g., 9 kg of cocaine hydrochloride, 9.6 kg of pure codeine, 38 kg of codeine phosphate, 5.2 kg of morphine hydrochloride, about 3500 ampoules of morphine in different concentrations, 27 kg of pure theobromine. Apart from that, the trio had taken a supply of bandaging materials: 5 kg of lignin, 10 kg of absorbent cotton wool and 1000 packages of bandage gauze (LNA LVA 1941a).

The three aforementioned individuals were later put in charge of supplying medications to the Red Army, which invites speculation regarding the possible further usage of the removed medications. After evacuation, Hackels Vasermanis was the pharmacy chief of the 1st Separate Latvian Regiment, 201st Latvian Riflemen Division (Vatere 1997b). Vasermanis returned to Latvia in 1944, having been re-appointed as the head of CPD that same year. He pursued his further career in higher pharmaceutical education, having become the Dean of the Faculty of Pharmacy. Later, he moved from Latvia to Israel, where he died October 10, 1996 (Vatere 1997b).

2.3. Nationalisation of pharmacies

Transfer of pharmacies, various pharmaceutical companies, hospitals and clinics to the jurisdiction of the government was a natural consequence of the establishment of Soviet rule within the territory of Latvia. For the first time, pharmacies were nationalised in Latvia in autumn 1940. The process was fast and rather smooth. This was in contrast with what had happened in Soviet Russia – where pharmacies, pharmaceutical chemical laboratories and factories were nationalised in early 1918, shortly after the Russian Revolution. Back at the time, pharmacy practitioners with secondary pharmaceutical education actively assisted and ultimately succeeded in the conversion of private pharmacies into public facilities (Schaeffer Conroy 1994). The foundation of pharmacies nationalisation in Soviet Russia was the ideologically shaped class struggle motive, that is, common workers resentment

towards business owners. In Latvia, nationalisation of pharmacies and other pharmaceutical enterprises was initiated by the new Soviet government, as there was no class struggle undercurrent. The nationalisation process of pharmacies was commenced on October 31, 1940 (*Iesākta nacionalizēto namu un aptieku pārņemšana 1940*). The Deputy People's Commissar for Health Protection M. Jofe stated that the goal of the Commissariat was to have private hospitals, pharmacies, pharmaceutical factories and wholesalers of drugs and medications nationalised within the shortest possible term, as instances of "speculation" had recently been detected in the sale of medications at multiple of pharmacies, as well as attempts to "hinder" the turnover of medications (*Par privātslimnīcu un aptieku nacionalizāciju 1940*). These statements were quite similar to those dating back to the nationalisation of pharmacies in Soviet Russia in 1918. Similar slogans were employed in 1940 in Latvia, claiming that the old bureaucratic system had diminished the role of pharmacists to that of mere passive executors, stripped of any chances to exercise initiative; nationalisation was announced as a means of letting loose the true potential of pharmacists.

In the course of nationalisation, enterprises were taken into government hands with all inventory and personnel. These actions also resulted in the staff of pharmaceutical companies becoming public-sector employees. Former pharmacy owners were left in their positions as pharmacy managers or demoted to basic staff. The entire process was accompanied by active shifting of pharmacy employees between offices and workplaces, causing even greater confusion (*Dzirne 1944a*). Nationalised pharmacies lost their names, being assigned numbers instead; however, this pharmacy numeration system was not implemented completely before the summer of 1941. As instructed by the respective order of the CPD to pharmacy managers, each pharmacy was to be assigned the name "CPD Pharmacy No. ...". Cardboard signs with the new name were supposed to be posted at visible locations; all signs, plates, labels and prescription signatures with a pharmacy's former name were to be removed from service immediately (*LNA LVA 1941b*). Along with the old names, which could sometimes date several centuries back, pharmacies lost their identities. The nationalisation of pharmacies and other pharmaceutical enterprises was completed by November 10 (*Pabeigta aptieku pārņemšana 1940*). In total, 488 pharmacies and 14 drug and medication wholesalers were nationalised in Latvia in the autumn of 1940 (*Dzirne 1942*). The nationalisation of pharmacies and other pharmaceutical companies in Latvia occurred at a quick pace, just like all other processes that the Soviet rule employed to take over the government, financial and media sectors. There is no direct evidence of any resistance on the part of pharmacists and pharmacy owners, or any public reaction to such alienation of property. Announcements of completion of the nationalisation process in the media expressed undisguised threats to anyone dissatisfied:

"After the nationalisation of pharmacies, the Chief Pharmacy Directorate leaves the old pharmacy owners in the capacity of interim managers in charge of their former enterprises or transfers them to other pharmacies, thus giving them a chance to prove their good will by working in the spirit of the new socialist country. None of those who are going to realise their duty to the country and work conscientiously and diligently will be left unemployed. As to those reluctant to abandon the "old virtues" or seeking to inflict any disruption whatsoever, they will have no place in our pharmaceutical workforce. Let us comprehend, aid and build our pharmacies in the spirit of the new Socialist era!" (*Pabeigta aptieku pārņemšana 1940*)

Quite unambiguously, former pharmacy owners had no choice but to get over it and accept the new system, otherwise they would have been left with no employment and subsistence.

The business nationalisation process took place during the first months of the occupation period. At the time, the general population was in a state of major confusion and ignorance; different and controversial rumours were about, as was the "shopping fever". For many residents of Latvia, the occupation of June 17 came as a surprise; there was an immense informational vacuum, and the public had no idea of what to expect from the Communist regime.

Another popular concept was that the occupation would not last long (*Dūra and Gundare 2004*).

Nationalisation of private property was a common element of the political system in all the countries that became parts of the Soviet Union after World War II. Pharmacies in Latvia were nationalised in 1940 for the first time, then again in autumn 1944 and spring 1945. The Polish Professor Anita Magowska in her study on pharmaceutical supply in Greater Poland Voivodeship writes that, shortly after the end of the World War II, the state authorities started to prepare for the elimination of private property, so that pharmacies and wholesalers would comply with the principles of the political system of socialism (*Magowska 1999*). She also emphasizes that it is very complicated for the study to reflect the period from 1951 to 1989, as it was characterised by a lack of logic and stability, as well as by the chaos in the pharmaceutical supply system, which was in line with the situation in Latvia. However, unlike the Baltic States, the nationalisation of all private pharmacies and wholesalers in Poland took place only on 8 January 1951 (*Magowska 1999*).

2.4. Availability of medications in Latvia during the Soviet occupation period

Business nationalisation was the first step intended to align the pharmacy industry of Latvia to that of the USSR. This entailed essential transformations, severely reshaping the structure of the industry and introducing centralised command. Pharmacy in Latvia would be adapted to the Soviet medication nomenclature and export/import mostly within the boundaries of the Soviet Union. This meant that autonomous procurement of medications faced heavy restrictions. Changes also affected the operation of pharmacies in practice, as great emphasis was put on mass production of extemporaneous medications. In Soviet Russia, this was a trend owing to the weak and underdeveloped pharmaceutical manufacturing industry.

In order to understand the prospects of Latvian pharmacies, one needs some insight into the traditions and development of pharmacy in Soviet Russia. At the time, pharmaceutical manufacturing in the Soviet Union was segregated into two categories: major factories and regional factories. In 1940, there were ten major factories within the vast territory of Soviet Russia. Health-related problems that the population of Russia was facing were mostly associated with insufficient production and supply of disinfectants, insecticides, antiseptics, sulphanilamides and vitamins to consumers (*Schaeffer Conroy 2008b*).

In 1939, most Soviet pharmaceutical factories were still using poor and primitive equipment. Common problems that prevented the pharmaceutical industry of Soviet Russia from delivering on production quotas required by the five-year plan were irregular supply of raw materials, frequent blackouts at certain factories, outdated technical equipment, insufficiently clean water and the poor state of water supply systems (*Schaeffer Conroy 2008c*), as well as workers indifferent attitude to the work itself, to equipment and to finished products (*Schaeffer Conroy 2008b*).

Propaganda of Soviet Russian pharmacies could often be found in Latvian press at the time. The CPD published various major plans in respect of Latvian pharmacies, mostly comparing them to the pharmacies in Moscow. Upon returning from a visit to Moscow, where M. Karštets had witnessed the operation of the most exemplary pharmacies, he reported on what reasonable methods of operation were employed by pharmacies in Soviet Russia. This allowed for a major increase in labour productivity; as an example, he mentioned that in Latvia, a pharmacy assistant was able to fill out 50 to 70 dosage forms within 8 working hours, whereas in Moscow, some 200 to 400 dosage forms per shift were considered normal (*Kā strādā aptieku darbinieki Maskavā 1940*).

His comparison was definitely out of place. In Latvia, mass preparation of extemporaneous drugs in pharmacies was unnecessary, as the pharmaceutical industry has achieved a good degree of development and some pharmacy laboratories were already on the threshold of separating laboratories from factories. According

to the data provided by the Pharmacy Board, 25 chemical and pharmaceutical laboratories or factories were in operation within Latvia's relatively small territory by 1939 (Dzirne 1944a). The most prominent chemical and pharmaceutical companies, enjoying the role of market leaders were "Medfro", "Pharmakon", "Farmācija" JSC, "P. Putniņš", "Farmazans" JSC, "Eikert, Marshal & Co", "F. Hoffmann-La Roche & Co" and the Latvian Red Cross Laboratory. Some of these factories displayed considerable achievements. For instance, the "Medfro" chemical and pharmaceutical company founded in 1921 was the first one in Latvia to produce sterile solutions in ampoules and sterile surgical suture material – catgut, made from sheep intestines, and silk thread. The product catalogue of 1939 contained about 750 pharmaceutical products, including 74 original preparations with brand names (Kas jauns tirdzniecībā, rūpniecībā un tehnikā – firmu hronika 1939).

In early 1941, the CPD announced the transfer of Latvian pharmacies to the drug nomenclature of the Soviet Union (Reorganizē aptiekas 1941). The Soviet drug nomenclature structured medications by chemical designations. The practice of classifying medications by chemical designations could be considered a positive development being in tune with the modern usage of internationally non-patented names; at the time, however, this was an ideological choice. According to the dogmata of socialism, individually patented names should not be used as drug names. The principal guideline of the nomenclature was that all medications and drug substances it included were produced and consumed in the Soviet Union. Usage of medications not included in the nomenclature was officially not permitted. The need for such nomenclature was substantiated by the consideration that many foreign patented medications imported in Latvia were similar in terms of pharmacological action, only differing in terms of patented names and thus only competing through advertising.

An example that gives an idea of the available range of medications would be the "Medication and Product Nomenclature of Sections of the Central Pharmacy Storehouse", issued by the CPD during the second Soviet occupation, in 1954. It contained a total of 5 sections. The section listing the final dosage forms, mostly tablets and ampoules, mentions 268 units. The strictly controlled substance list consisted of narcotic and potent substances, as well as antibiotics, which were extremely scarce at the time – a total of 70 units. Other sections contained records of active pharmaceutical ingredients, medical herbs, tinctures, extracts and extemporaneous preparations (Centrālās aptieku noliktavas nodaļu medikamentu un preču nomenklatūra 1954).

In 1941, Latvian press announced that expensive imported medications were further going to be replaced with Soviet medications; for instance, the German patented anti-bacterial drug "Prontosil" was going to be replaced with its USSR-produced counterpart, the "Red Streptocide" (Pārkārtotas zāļu cenas 1941). Pharmaceutical enterprises in Soviet Russia synthesised classical anti-bacterial medications of the sulphanilamide group. The most widely-used ones were white and red streptocide, sulfidine or sulfapyridine, sulfazole or sulfamethylthiazole. However, drug substances of the sulphanilamide group were not effective against all infectious diseases; furthermore, the use of red streptocide carried side effects, it being a highly toxic compound. Chemical and pharmaceutical enterprises of Soviet Russia started producing penicillin for mass consumption after 1945 (Schaeffer Conroy 2008a).

The most important point to note here is that medications were not readily available to the population during the Soviet occupation, as there were restrictions imposed on the purchase thereof. In early 1941, the CPD sales director returned from a visit to Moscow, tasked with reconciling the range and amounts of medications that Latvia could receive from the Soviet Union. He reported that restrictions on the purchase of medications were required due to the "shopping fever", thus safe guarding medications for "genuine emergency cases", as the import of pharmaceuticals from abroad had ceased half a year earlier (Medikamenti un patentlīdzekļi 1941). Pharmacies could only issue imported patented medications in original packages upon a doctor's prescription and in "normal" consumption amounts – just one original (Karštets 1941).

The last batch of medications from abroad was delivered to Latvia shortly before the Soviet occupation. During the independence period, Latvia had mostly imported patented medications and raw materials for drug production from Germany, the Netherlands, UK and Sweden. In 1939, on the brink of World War II, the supply of medications to the Latvian population was faced with a major challenge. In early 1940, anticipating complications with the supply of medications, the Pharmacy Board sent two representatives on a mission to Germany and the Netherlands. As it was reported later,

"These representatives were given wide-ranging powers – to buy whatever was necessary and whatever was still available. Money was not a factor. Despite the fact that many medicinal products were no longer available in Germany and the Netherlands at all, whereas other products could only be purchased in limited amounts, the representatives were eventually able to purchase one million Lats' worth of medications." (Dzirne 1944b)

The ordered medications reached Latvia in April and May; a smaller shipment arrived in early June, just before the occupation. This ample procurement of medications in the beginning of 1940 allowed the country to survive one year of Bolshevik rule with virtually no supplies of medications from the Soviet Union – all while a share of Latvia's medication stock piles was transported to the USSR (Dzirne 1944a).

The chaotic functioning of the CPD was officially admitted by the People's Commissariat of Public Control of the Latvian SSR, which initiated wide-ranged inspections at the Central Pharmacy Directorate (CPD) and at wholesalers and retailers of medical products in early June 1941, in order to determine the state of supply of medications, and the financial state of these institutions. These inspections revealed that wholesalers were unable to deliver ordered products to a considerable number of hospitals and pharmacies. Within a period of two months, orders at pharmacies were delayed for longer than 10 days in 94 instances, whereas in 22 cases they were delayed for over 20 days, even though depots did have sufficient stock of the necessary medical and sanitary products. In certain instances, orders would not be fulfilled for over a month. Findings also stated that accounting and material record-keeping at the CPD were not properly organised; the inspection revealed records to be in a chaotic state; documents were not processed but simply piled up on open shelves instead. No repeated stocktaking of medical products was carried out as prices were increased or reduced (Latvijas PSR Valsts kontroles tautas komisariātā 1941). Apparently, the 63-employee team of the CPD was not competent enough to do its job.

In his speech at a medical conference, Žanis Spure (1901-1943), Secretary of the Central Committee of the Latvian Communist Party (LCP CC) admitted: "the condition of pharmacies is chaotic" (Jāizskauž birokrātisms 1941).

Within this period of time, about 23 pharmacies were closed due to different reasons (Dzirne 1944a). As the Bolsheviks retreated and the territory of Latvia was engulfed by war, 14 more pharmacies were burnt or destroyed; many pharmacies in the hinterlands were robbed, the medication wholesale depot in the city of Liepāja was burnt down with its entire stock of drugs. According to calculations made in 1942, financial and physical damage incurred within that period amounted to 93,286 Reichsmark (RM) (Dzirne 1944c).

After the second occupation of Latvia by the USSR, there was a little choice of final dosage forms in pharmacies of Latvia, because the work of pharmacies was mostly based on extemporaneous preparations and the use of medical herbs. There was a serious shortage of caffeine, codeine, pyramidone, papaverine, pilocarpine, atropine, antipyretics, antitussives and endocrine agents, as well as different tinctures, vegetable oils, fish oil, soft paraffin and dressing material in post-war Latvia (LNA LVA 1945).

In 1945, delivery of any type of products from the Soviet Union was hindered by a lack of vehicles and fuel. Later the situation became more stable, however, in 1950's and 1960's the availability of medicines in Latvian pharmacies was still poor; there were problems of supply and logistics. At that time, Latvian residents requested medicines from the Red Cross of Latvia, which was located and functioned in exile in West Germany. For example, during the period from 1956 until 1958, a total of 1325 packages

with 18 715 units of medicinal products were sent to occupied Latvia from West Germany. Antibiotics, antipyretics and vitamins were particularly in demand (Lauze et al. 2017). The situation in pharmacies of Latvia corresponded to the situation of pharmacies in socialist Poland. Their pharmacies also lacked many drugs in 1960's. It was typical that the shortage referred to the most essential medicines: vitamins, antivirals and antibiotics (Magowska 1999).

2.5. Pharmacists afflicted by the Soviet occupation's terror

Restriction of the freedom of speech and press, pressure against dissent, arrests and alienation of property as described above were all components of the totalitarian government ideology of the Communist regime (Riekstiņš J 2002). The wave of repressions peaked on June 13 and 14, 1941, with mass deportations of the population to Siberia. Having gained access to the documentation of the Latvian War Ministry, the "Aizsargi" (guards) organisation and a number of other institutions and organisations, as well as documents pertaining to the nationalisation of enterprises and companies, and reports from secret agents and other sources, officers of the People's Commissariat for State Security of the LSSR used these as grounds for registration of thousands of individuals who were supposed to be deported (Riekstiņš 2002). A member of the "Aizsargi" organisation, a member of a corporation, a former homeowner or entrepreneur – anyone could be labelled as a "socially hazardous element" or a "member of a counter-revolutionary organisation", as defined in Communist terminology (Vīksne and Kangeris 1999). Pharmacy workers did not escape these repressions either.

The earliest data on those deported were published by the organisation "Populace Assistance" shortly after the establishment of the Nazi German occupation government in Latvia. Lists containing the names and occupations of the deported individuals were made. As of the beginning of 1942, according to the data presented by "Populace Assistance", 44 pharmacists were deported (Nobeigta statistikas kārtošana par aizvestajiem 1942). Another publication of the "Populace Assistance" of 1943 stated that repressions had afflicted 60 pharmacists and pharmacy assistants, of which 40 were men and 20 were women (Freivalds 1943).

The most precise data in this case were provided by the head of the Pharmacy Board Aleksandrs Dzirne (1907-2001). In 1944, he published the names, surnames and destinations of his deported colleagues, naming 56 individuals in total – 38 men and 18 women. He also mentioned that four pharmaceutical employees had been killed by military action (Dzirne 1944a). It is known that he omitted seven pharmaceutical employees of Jewish ethnicity from this list.

As it is known from the summarised information from the files of deported individuals kept by the National Archives of Latvia (LNA), 16 out of these 56 individuals, of which five were men, survived (LNA LVA 1941c). Files on the deported individuals openly specify the reasons for their deportation to Siberia. Deportations were mostly due to the respective individuals being classified as enemies of the people or socially hazardous elements. Among pharmacy workers, these categories applied to socially active men, mostly members of the nationally oriented organisation called "Aizsargi" (guards), as well as members of other organisations, political parties, owners of pharmacies, enterprises, land or houses, and those who had been better-off financially. For example, Aleksandrs Tombergs (1884-1942), a pharmacist, owner of a fragrance and soap laboratory and two shops, was arrested and deported to Usollag of the Molotov Region, where he died February 6, 1942 (LNA LVA Tombergs Aleksandrs 1941). Aleksandrs Tombergs was born in the Jelgava District of Latvia. Having earned a pharmacist degree in Moscow in 1911, he then returned to the newly established Republic of Latvia, and started his business in 1922 (Firma „Prov. A. Tombergs” 1935). His deportation file contains a biographical questionnaire, where A. Tombergs provided certain data on himself, including affiliation with organisations, his property and frequent stays in foreign countries. In this questionnaire, the Bolsheviks noted his property as being worth 300,000 Lats and the phrase "Acting in the interests of the company, I visited Berlin and Leipzig, as well as France, Switzerland, Italy, Belgium and Austria each year" with a red pencil. The decision on his arrest

quoted these phrases from the questionnaire as grounds for his imprisonment, along with the shops and the fragrance and soap factory he owned (LNA LVA Tombergs Aleksandrs 1941).

Aleksandrs Pauls Širons (1914-1942), a young and reckless pharmacy assistant, was arrested because on June 17, on the very first day of the occupation, he had ostentatiously sung the Latvian National Anthem "Dievs, svētī Latviju!" ("God Bless Latvia!") in a public place. The grounds for arrest were explained as a chauvinistic attitude, expression of direct hatred towards the Soviet rule, as well as the fact that his father owned a pharmacy. The Bolsheviks deported him to Vyatlag of the Kirov Region, where he was shot on January 16, 1942 (LNA LVA Širons Aleksandrs Pauls 1941). Female pharmacists and pharmacy assistants were most frequently deported in connection with their husbands or relatives being arrested. Materials obtained from files on those deported clearly acknowledge the attitude towards people during that period: those who worked and strove towards prosperity got turned in by those that envied them and by miscellaneous "witnesses". Owners of pharmacies and pharmaceutical businesses were also among these people. Those who shared their opinions on what was going on, even with their closest confidants, could never be sure that the Soviet government and its penal system would not eventually find out. Available sources of information also show that organised resistance and any expression of dislike towards the Soviet rule was a highroad to prosecution at that time.

3. Conclusions

Many different sources were used to gather information for this study that provides a chronological insight into the most crucial aspects of the impact of the Soviet occupation (1940-1941) on pharmacy in Latvia. The study has demonstrated the destructive experience of coercive transition from one system to another.

At the same time, the study presents the methods of sovietisation of the pharmaceutical industry used by the Soviet authorities, which were repeated in a similar fashion, for example, in Poland. The establishment of a centralised authority, nationalisation of private enterprises, the medication import restriction on the one hand and social terror and repression against the population on the other hand have had an adverse effect. The most significant consequences in some of the countries occupied by the USSR were similar: the moderate shortage of medication and shortcomings in their supply and logistics.

A sequential continuation of this study is to carry out an in-depth research into the impact of the second Soviet occupation on the pharmaceutical industry, which dictated its terms until the restoration of independence of Latvia in 1990.

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