

# Alcohol and Alcoholism in Russia: Policies and their Effects

Rusyada Alkol ve Alkolizim: Politikalar ve Etkileri

Sergei V. Jargin

Department of Public Health, Peoples' Friendship University of Russia, Moscow, Russia

#### **ABSTRACT**

The purpose of this review was to draw attention to certain aspects of alcohol consumption in Russia related to the public health: consequences of governmental anti-alcohol policies, use of alcohol-related topics to distract public attention from shortages of public health and assistance, toxicity of some legally sold alcoholic beverages, offences against alcoholics and people with alcohol-related dementia.

Key words: Alcohol, alcoholism, Russia.

#### ÖZ

Bu derlemenin amacı Rusya hükümetin anti alkol politikası ile halkın dikkatini kamu sağlığı ve yardımlarının yetersizliğinden, yasal olarak satılan alkollü içeceklerin toksisitesinden, alkol bağımlılığı ve bunula ilişkili demanslı kişilerden uzaklaştırmaya yönelik olmasından ötürü rusyada alkol tüketiminin toplum sağlına olan etkilerine dikkat çekmektir.

Anahtar kelimeler: Alkol, alkolizm, Rusya.

### Introduction

The purpose of this review was to draw attention to certain aspects of alcohol consumption in Russia: consequences of governmental anti-alcohol policies, use of alcohol-related topics to distract public attention from shortages of public health and assistance, toxicity of some legally sold alcoholic beverages, offences against alcoholics and people with alcohol-related dementia aimed among others at appropriation of their immobile property.



The fact that the state at various times stimulated alcohol sales is known to the scientific community<sup>1</sup>. During the Soviet period, drunkenness at workplaces was tolerated at many factories and institutions. Soviet festivals, birthdays and other personal events were celebrated by work teams. In places, these traditions have persisted also during the post-Soviet period. Ringleaders could be observed in students', workers' and intelligentsia groups, who manipulated others towards consumption of large amounts of alcohol. Non-drinkers were sometimes stigmatized<sup>2</sup>. The governmental anti-alcohol campaigns had consequences quite different from proclaimed goals, which will be discussed in this review.

# **Treatment of Alcohol Dependence**

Aversive therapy using emetics and disulfiram preparations was applied together with persuasion referred to as rational psychotherapy<sup>3-5</sup>. Labor-and-treatment preventoriums (abbreviated LTP also in Russian) were in fact a form of detainment for chronic alcoholics violating public order and labor discipline. However, the detainees in the LTP were not devoid of the access to alcohol: excursions to the bottle store through loopholes "unnoticed" by the administration could be regularly observed. Implantation of disulfiram preparations, being in fact placebos<sup>6,7</sup>, has been performed for money. After the implantations, disulfiram-alcohol reactions were reportedly sometimes observed, but were absent as a rule<sup>5</sup>. Many patients started drinking alcohol shortly after the implantation. During the 1990s, the business with the treatment of alcoholism has become widespread, whereas many laypersons participated<sup>8</sup>. The so-called ultra-rapid (one séance) psychotherapy of alcohol dependence, known as "coding"9,10, should be commented. The method was started during the anti-alcohol campaign; it has been criticized because of the intimidating suggestion, unpleasant manipulations such as the spraying of the throat by chloroethane, "forceful thumb pressure" onto the trigeminal nerve branches, forced backwards movements of the patient's head, etc.<sup>11</sup> The latter technique may be dangerous for patients with latent vertebral anomalies. Some methods included general anesthesia<sup>5</sup>. One of the motives behind the widespread use of the "coding" has been minimum expenditure and maximum financial gain<sup>12</sup>. Other treatments generally disagreeing with the internationally accepted practice have been applied, e.g. antipsychotic drugs (phenothiazines, haloperidol) for the treatment of alcohol dependence<sup>4,13</sup>. Among contraindications, additive or synergistic interactions between some antipsychotic drugs and alcohol<sup>14</sup>, potentially aggravating liver injury, should have been considered. Moreover, intravenous infusion therapy (solutions of sodium chloride, glucose, dextran etc.)

was broadly applied and recommended for detoxication and rehydration e.g. for the "moderately severe withdrawal syndrome"<sup>5</sup>. Lengthy infusions were unfounded in many cases: alcohol and its metabolites are discharged spontaneously, while rehydration can be achieved per os. In conditions of insufficient procedural quality assurance, overuse of intravenous infusions was believed to result in the spread of viral hepatitis, other infections, and thrombotic complications<sup>15</sup>. It is known that the combined alcoholic and viral liver injury is unfavorable. Apparently, ideation of punishment coupled with irresponsibility has played a role in some medical personnel and policy makers<sup>16</sup>. The principle of informed consent has not been sufficiently known and observed in the former SU; paternalistic or authoritative attitude to patients often prevailed<sup>17</sup>.

# **Anti-alcohol Campaign and Thereafter**

The anti-alcohol campaign (1985-1988), and the foreseeable increase in the alcohol consumption after its failure, destabilized the society paving the way for the economical reforms. Workers and intelligentsia did not protest against privatizations of factories and other state property during the early 1990s because of their drunkenness and involvement into illegal activities such as the workplace theft, use of equipment for private purposes etc., which was tolerated by the management at that and earlier time<sup>18</sup>. Alcoholics are prone to the emotions of guilt and shame, tend to have low self-esteem<sup>19</sup>, thus being easier to manipulate and to command.

The alcohol-related mortality temporarily decreased during the anti-alcohol campaign; but the frequency of poisonings by surrogates was increasing. Manufacturing of home-made alcohol (samogon) was rapidly growing. Cheap perfumery (eau-de-Cologne, lotions), window cleaner etc. were massively sold and caused poisonings, which was knowingly tolerated by the authorities. The quality of legally sold alcoholic beverages deteriorated. After the failure of the campaign, legally sold beverages have become easily available; and consumption of technical liquids decreased abruptly. The state alcohol monopoly was abolished in 1992. Thereafter, unpurified technical alcohol (synthetic and cellulosic), finding no market because of closing factories, was extensively used for the beverage production<sup>8,20-22</sup>. Low quality alcohol was imported to Russia from other countries, particularly, those of the former SU. The author observed a huge line of tank trucks with ethanol at a border crossing. It is unknown, what kind of liquids those gasoline tankers had transported before, whether and how they

had been cleaned inside. The Caucasus has been generally known as a nationwide source of cheap alcoholic beverages<sup>8</sup>. The alcohol was diluted and poured out in variably clean vodka bottles: especially small manufacturers would not spend much money on bottle washing and necessary equipment, while the disdainful attitude of some Russian business to the mass consumer is known. Note that vestiges of toxic substances can remain in unwashed bottles. Cases e.g. of organochloride poisoning from the contents of vodka bottles are known. Technical alcohol was added to beer, wine and other beverages, which could be smelled and tasted.

Table 1. Average monthly salaries and pensions vs. minimal vodka prices in Russia (rubles)

Year	Average salary*	Average pension*	Min. vodka price 0.5 l bottle	Salary/vodka price	Pension/vodka price
1984	200**	80***	5	40	16
2010	21,000	7,500	90	233	83
2014	32,500	10,800	220	148	49
2015	33,100	10,900	185	178	59

Notes: In 1984 rubles were not convertible. Early in 2015 one US dollar was equal to approximately 60 rubles.

It was shown in rat experiments that acute toxicity of cellulosic alcohol is 1.2 times higher than that of rectified alcohol distilled from grain or other fermented plant material. Toxicity of synthetic alcohol, purified according to the requirements to beverage alcohol, was shown to be 1.1 times higher than that from eatables<sup>21</sup>. Physiologically it is understandable: some human populations have been adapting to alcohol together with the side products of the natural fermentation since thousands of years. New technologies of alcohol manufacturing are accompanied by new side products, which have induced no adaptation. This might explain the higher toxicity of falsified alcoholic beverages as well as their unusual taste.

The incidence of lethal poisonings by legally purchased alcoholic beverages increased considerably in the early 1990s<sup>20</sup>. Sales of falsified beverages through legally operating shops and kiosks occurred generally with the knowledge of authorities; it can be reasonably assumed that kickbacks have been paid. Exaggeration by some writers<sup>23</sup> of the consumption of non-beverage alcohol (technical alcohol-containing liquids, perfumery, moonshine) shifts responsibility for poisonings onto the consumers, who allegedly prefer to drink surrogates. According to our observations and generally known facts, drinking of alcohol-containing

<sup>\*</sup>Federal State Statistic Service; http://www.gks.ru/wps/wcm/connect/rosstat\_main/rosstat/en/figures/living/

<sup>\*\*</sup>Pension Fund of Russian Federation, Kirov Branch (in Russian) http://www.pfr.kirov.ru/node/551; \*\*\*Soviet Union. Wikipedia in Russian

technical liquids and perfumery decreased abruptly after the failure of the anti-alcohol campaign in 1989, when vodka, beer and other beverages have become easily available and relatively cheap (Table 1).

# **Health Care, Life Expectancy and Alcohol**

After the anti-alcohol campaign, the average life expectancy in Russia decreased especially among men. For the period 1993-2001, this figure was estimated to be around 58-59 years<sup>8,24,25</sup>. The causes of the enhanced mortality have been analyzed before: limited availability of modern health care, chronic diseases often left untreated, late detection of malignant tumors<sup>26,27</sup>, toxicity of some legally sold alcoholic beverages, crime against alcoholdepended people resulting in some cases in homelessness and premature death. Some people name it parricide<sup>28</sup>; certainly, it is a matter of definition, how to name the policies predictably causing enhanced mortality in middle-aged and elderly males. As discussed above, some antialcohol measures probably resulted in heavier intoxications and surplus mortality due to the consumption of surrogates. Moreover, limited availability of alcohol during the anti-alcohol campaign contributed to drug addiction<sup>29</sup> and hence to the dissemination of HIV and hepatitis virus infection<sup>30</sup>.

Furthermore, the following observation should be commented: "It is interesting to note that, unlike other alcohol-related causes, mortality from liver cirrhosis was unchanged in Belarus, and changed only modestly in Russia" The spread of hepatitis virus infection may be a confounding factor. It was reported that the registered incidence of chronic viral hepatitis has increased 2.2-fold in Russia over the past decade<sup>32</sup>; unrecorded figures may be higher considering decreased coverage of the population by medical checkups. The under-diagnosis of liver cirrhosis might be another confounding factor disguising cause-effect relationship between alcohol consumption and mortality of liver cirrhosis. Many Russian alcoholics do not live long enough to die of liver cirrhosis and its complications. Among the most frequent causes of their death have been respiratory diseases: chronic bronchitis, bronchopneumonia, tuberculosis etc.<sup>33-35</sup> This is probably caused by smoking, aspiration of gastric contents and absence of public houses affordable for drinkers with low incomes, who loiter outdoors and can fall asleep in a cold place. Besides, derangements of pulmonary surfactant under the impact of alcohol consumption have been reported<sup>36</sup>. In this connection, it should be warned against application of invasive methods without evidence-based clinical indications<sup>17</sup>, e.g.

instillations of surfactant preparations via bronchoscope<sup>37</sup>. Alcoholics are at risk for invasive methods without indications, used also for research<sup>38</sup>.

As discussed above, one of the causes of enhanced mortality after the anti-alcohol campaign was abundance of falsified alcoholic beverages, produced from technical alcohol and other surrogates, sold through legally operating shops and kiosks. It was reported on numerous lethal intoxications after a consumption of moderate amounts of the beverages<sup>22</sup>, with the relatively low blood alcohol concentration<sup>8,20,24</sup>. After 1991, the increase in mortality considerably outstripped the alcohol consumption, the latter having increased from 1987 to 1992 by 25-27 %. For comparison, the incidence of alcoholic psychoses increased during the same period 2.4 times, and mortality from alcohol-related causes - 2.5 times<sup>21</sup>. For example, in Karelia, alone during the year 1992, the incidence of lethal alcohol poisonings increased 3 times along with the 1.4-fold decrease in the average blood alcohol concentration in such cases<sup>8</sup>. For the whole Russian Federation, the mortality rate from alcoholic poisonings increased from 1998 to 2004 by 58 % and continued growing<sup>24</sup>. The non-registered alcoholrelated mortality was probably higher due to the habitual post mortem overdiagnosis of cardiovascular diseases in unclear cases<sup>24,26</sup>. Finally, the low quality of alcoholic beverages must have contributed to the enhanced incidence of acute pancreatitis<sup>39</sup>. In Russia, the rate of pancreatitis mortality has been among the highest in the world. The pancreatitis mortality rate increased during the period 1992-1994 by 72.3% and 29.6% for men and women, respectively. After a slight decrease during 1995-1998, the pancreatitis mortality rate "jumped dramatically" between 1998 and 2005 (by 84.3% and 46.4% in men and women)<sup>40</sup>, outstripping the increase in alcohol consumption for the corresponding periods<sup>40,41</sup> (which was masked by the scale of the graphs in<sup>40</sup>). Epidemiologic data indicate a higher frequency of alcohol-induced acute pancreatitis in the areas where surrogates or homemade alcohol are easily available<sup>42</sup>. In particular, methanol poisoning can produce pancreatic injury<sup>43</sup>. Nonpurified synthetic alcohol and self-made beverages can have a relatively high methanol concentration<sup>21</sup>.

Technical alcohol with toxic admixtures was regarded to be the main cause of additional toxicity of alcoholic beverages<sup>8</sup>. Poisonings by legally sold beverages were reported repeatedly<sup>21</sup>; for example, in 2006, an outbreak of toxic liver injury with jaundice was reportedly caused by disinfectant Extrasept-1 sold in vodka bottles in many regions of Russia: Perm, Ekaterinburg, Irkutsk, Khabarovsk and others. Apart from ethanol, this liquid contained

0.08-0.15% of diethyl phthalate and 0.1-0.14% of polyhexamethylene quanidine hydrochloride (PHMG). The registered number of poisonings with pronounced jaundice during the period August-November 2006 amounted to 12,611 cases, among them 1189 lethal ones<sup>44,45</sup>. Unrecorded figures were probably higher. Histologically, "cholestatic hepatitis with a severe inflammatory component" was reported<sup>45</sup>. Remarkably, the toxicological assessments of PHMG and a structurally related compound - polyhexamethylene biquanide (PHMB) have not shown any strong hepatotoxicity, whereas PHMG had broader margins of safety than PHMB. Both substances are used worldwide as antimicrobial agents also for treating swimming pool water or as pool cleaners. The LD<sub>50</sub> in rats for PHMG was estimated to be 600 mg/kg<sup>46,47</sup>, which, extrapolated to humans, means that an individual weighing 100 kg would have to drink 60 liters of Extrasept-1 to receive an LD<sub>50</sub> of PHMG. Note that rats died with predominating nervous symptoms, not from hepatotoxicity<sup>46,47</sup>. As for diethyl phthalate, its acute toxicity to mammals is low<sup>48,49</sup>. Some phthalates can produce liver injury but this effect has not been demonstrated when tested in primates and humans (may be insufficiently investigated)<sup>50</sup>. Considering the above, there is a suspicion that many intoxications including the mass poisoning in 2006 were in reality caused by some hepatotoxic admixtures, e.g. organochlorides. In particular, carbon tetrachloride, used e.g. in dry cleaning, could have caused liver injury<sup>51</sup>. The sources of the surrogate should have been clarified by authorities, e.g. whether it was dry cleaning; there was gossip about it. Importantly, the toxic liquid was purchased in shops and kiosks in vodka bottles<sup>44</sup>, which has been obfuscated by some writers creating an impression that consumers deliberately bought disinfectant for drinking: "According to the media and personal communications by narcology experts, this outbreak was caused by the consumption of antiseptics with chloride compounds due to the deficit of other non-beverage alcohol. The victims had yellow eyes, which distracted public attention disproportionately from the amazing positive dynamics of many public health indicators"52. Witnesses in favor of the hypothesis that the outbreak was caused by "chloride compounds" (organochlorides were probably meant) are, however, mentioned in this passage. Note that there was not the "deficit of other non-beverage alcohol" but the temporary deficit of vodka caused by the excise duty elevation in 2006<sup>5</sup>. Unscrupulous manufacturers filled this gap by surrogates, which were sold in vodka bottles<sup>44</sup> through legally operating shops and kiosks. Apart from limited sales of homemade alcohol (samogon) mainly to neighbors in rural areas or reselling at night of beverages legally purchased during the daytime, there is no illegal alcohol retail market in Russia. Today, given the easily available, relatively cheap vodka and beer, workers would hardly ever steal and drink technical liquids, as some of them did during the anti-alcohol campaign. Finally, it should be taken into account that toxic alcohol-containing liquids not only cause acute poisonings but can exacerbate chronic diseases.

In this connection, statistical data presented in diagrams by Khaltourina and Korotayev<sup>33</sup> deserve to be commented. Around 2006, the curves both of male mortality and of fatal alcohol poisonings go smoothly downwards, which is compatible with some literature<sup>5,54</sup>, although in a diagram presented in<sup>22</sup>, the all-cause mortality in 2006 is slightly higher than in preceding and subsequent years. As discussed above, in 2006 there was "a mass wave of severe poisonings"<sup>44,45</sup>. This outbreak, i.e. the use of technical liquids by unscrupulous vodka manufacturers, resulted from the changes in alcohol policies<sup>53,54</sup>, in particular, an elevation of excise duties<sup>5</sup>. The "outbreak of toxic hepatitis" in 2006 was discussed by Khaltourina in a Russian-language article<sup>55</sup> but not in the renowned journal<sup>53</sup>. Previously, Khaltourina and Korotayev<sup>56</sup> wrote that alcohol policy should include measures against manufacturing and sales of surrogates. Note that the industry will always produce alcohol-containing liquids for technical purposes. What is important is prevention of sales of surrogates in vodka bottles and addition of technical alcohol to beer and other beverages.

The decrease in mortality since 2006 may have been caused by improvements in the health care (which should not give rise to excessive optimism in view of persisting shortages), quality improvement of alcoholic beverages, the general tendency of alcohol consumption decrease<sup>57</sup>, particularly, decline of the heavy binge drinking of vodka<sup>58</sup>, partly replaced by moderate consumption of beer<sup>40</sup>. Reliability of official statistics is also not a matter of course<sup>26</sup>. This improvement should be seen against the background of human rights violations, intimidation and crime against alcoholics aimed among others at appropriation of their flats and houses<sup>28</sup>, which would hardly predispose to a leisure drinking. Hopefully, there is an improvement tendency also in this sphere together with the governmental measures against corruption etc. As for younger people, they seem to overtake the moderate alcohol consumption style prevailing in other countries.

In regard to future research directions, poor quality alcoholic beverages i.e. substances other than ethanol are of importance as they may be more toxic than ethanol. This topic requires well-aimed toxicological studies. For that purpose we handed over at the 14th Annual International Conference on Dose-Response (21 April 2015 in Amherst, Massachusetts) several

specimens of the cheapest vodka purchased in Komi-Permyak Okrug - the region with one of the lowest life expectancy levels in Russian Federation<sup>59</sup> - to Professor Ronald J. Korthuis<sup>60</sup>, who has kindly agreed to arrange a toxicological investigation. Preliminary info: gas chromatography combined with flame ionization detection (GC-FID) on a column that would separate contaminants has revealed no unusual components. Hopefully, gas chromatography - mass spectrometry (GC-MS)<sup>61</sup> will provide more information.

### **Effects of Alcohol Policies**

The effects of recent "specific alcohol control policy measures on alcohol-related mortality" have been discussed in some Russian literature as if alcohol were a single factor determining mortality changes<sup>53</sup>. Other factors are not mentioned: availability and adequacy of health care<sup>62</sup>, toxicity of some legally sold alcoholic beverages (discussed above), decline of heavy binge drinking<sup>58</sup>, reliability of statistics<sup>26</sup> etc. Apparently, efficiency of governmental policies has been exaggerated in<sup>53,57</sup>. At the same time, there is a vacuum in advocacy for the public interest. The following citations are illustrative: "The effect of alcohol taxation measures is likely to be significant and moderately positive. However, its significance was outperformed with much stronger effects of the measures to reduce availability of ethyl alcohol and nonbeverage alcohol with very high alcohol content" and "All these measures greatly reduced the amount of ethyl alcohol available..."53 In fact, after the end of the anti-alcohol campaign in 1989, vodka and strong beer have become easily available (no gueues as during the Soviet time, more retail outlets), while the salary / vodka price ratio has remained many times higher than it had been prior to the campaign (Table 1). Khaltourina and Korotayev discussed the role of the "crisis of medicine" in their Russian-language book<sup>56</sup>, arguing against any significant role of this factor in the mortality increase. Validity of their arguments is guestionable; for example, the unchanged since the Soviet time mortality rate among stroke patients while the stroke incidence has increased. Overdiagnosis of stroke and cardiovascular diseases i.e. unreliability of statistics has been commented previously<sup>26</sup>. Decreasing since 1999 infant and maternal mortality, discussed as evidence of health care improvement<sup>56</sup>, may reflect priorities in the health care policies but is unrelated to the relatively high mortality predominantly in middle-aged men<sup>63</sup>, who are visibly underrepresented among patients in governmental policlinics. War veterans enjoy advantages in health care and everyday life; however, there are misgivings that the veteran status has been awarded gratuitously to some people from the privileged milieu. Regular medical checkups, maintained in many factories and institutions during the Soviet time, have been discontinued. There is also mistrust towards medicine because of its commercialization. All medications for outpatient treatment, some diagnostic and therapeutic procedures are not covered by medical insurance. For these and other reasons<sup>62</sup>, many people stay at home even if they have symptoms, receiving no adequate therapy for chronic diseases.

As discussed above, consumption of technical liquids and perfumery decreased abruptly after the anti-alcohol campaign, so that the "non-beverage alcohol with very high alcohol content"<sup>53</sup> allegedly bought by consumers from "illegal market"<sup>57</sup> has hardly played any significant role after the campaign, aside from medicinal and technical ethanol purloined at some workplaces. As mentioned above, apart from limited sales of homemade alcohol (samogon) and reselling at night of beverages legally bought during the daytime, there is no illegal alcohol retail market in Russia. All vodka and other alcoholic beverages, including counterfeit and toxic ones, imitations of foreign products<sup>64</sup> (Fig. 1,2), those concealed from excise duties, or made "in garages"<sup>65</sup>, have been sold through legally operating shops, supermarkets, eateries, and previously also kiosks, generally with the knowledge of authorities. Admittedly, a tendency of quality improvement of alcoholic beverages has been noticed since approximately the last decade, although cheap beer does sometimes reek of technical alcohol. However, recent international sanctions against Russia seem to have had a negative impact on the quality of sold foodstuff and some alcoholic beverages.

The "specific alcohol control policy measures" introduced since 2006<sup>53</sup> may reflect interactions between some groups involved in production and sales of alcohol; but they resulted only in moderate oscillations of the real vodka price considering inflation and no significant decrease in physical availability. The following prices for 0.5 vodka bottle were reported by an unofficial source: 2005 – 74.5 rubles; 2007 – 91 rubles (Russkii Portal http://www.opoccuu.com/vodkazena.htm), compare Table 1. Some governmental measures may even have contributed to consumption of higher doses, e.g. disappearance of small (0.33l) beer cans. Another recent measure – the prohibition from 1 January 2013 of beer sales between 23 p.m. and 8 a.m. (locally the restrictions may be stricter) – apparently results in purchasing by some people of larger amounts in advance with subsequent consumption. Admittedly, temporal and spatial restrictions of the alcohol sales seem to contribute to the public order. Physical restrictions of alcohol availability can cause a decrease in the total alcohol consumption<sup>66</sup> but may be conductive to heavier occasional intoxications i.e. binge drinking. In this way acted queues at

retail outlets during the Soviet period: after queuing, larger amounts of alcohol were usually purchased and then consumed. Analogously, having waited in a queue at the entrance to a beerhouse (pivnoi bar), companies or couples usually stayed there for hours. This was a foreseeable consequence of the anti-alcohol measures of 1958 and 1972, restricting vodka sales and maintaining queues at retail outlets.



Figure 1. Kagor— the namesake of the French red wine Cahors— is sweetish and smells added alcohol.



Figure 2. Ale Bogemia - probably meant Bohemia

## **Conclusion**

Heavy binge drinking and excessive alcohol consumption are obviously harmful for the drinkers, their relatives and the society as a whole. Apparently, Russia has made a step from her alcoholic past; but alcohol drinking still remains a part of our life; it can be "amputated" only together with life. The last anti-alcohol campaign (1985-88) and its consequences have demonstrated it. The concept of absolute sobriety as a goal of alcohol policies and alcoholism treatment, propagated e.g. by well-known surgeon Fedor Uglov<sup>67</sup>, seems to be insincere, unconstructive and unrealistic at least for the time being. Uglov applied lung resections and bronchoscopies without sufficient indications, overviewed in<sup>68</sup>. The anti-alcohol campaign was in a sense an invasive procedure performed without sufficient indications, causing loss of life. It can be speculated that if the society would not have been destabilized by the anti-alcohol campaign, the Chernobyl accident<sup>69</sup> and disintegration of the USSR would not have

happened. In fact, the campaign and its foreseeable failure have been exploited for politicoeconomical purposes such as privatization of the Soviet economy. A living organism should not be operated upon without evidence-based indications.

The labor productivity is growing; but unemployment is persisting, and there are not enough prestigious jobs for everybody. Under these circumstances, alcohol-dependent people of older age can be regarded as voluntary outsiders, ceding their places to more energetic fellow citizens. Following the example of more developed nations, they should be given a possibility to spend their time in public houses and then go home, under the condition of maintenance of public order. Inexpensive Soviet-time self-service beer houses can be reintroduced; discounts for seniors e.g. older than 60 for certain amounts of drinks per day might be considered. Moderate alcohol consumption should be permitted in homes for the aged. Today, conditions in Russian homes for the aged lag behind their Western counterparts, while personnel tend to be bossy and not always friendly to the inhabitants. Some private homes leave the decision on the beer drinking permission with the paying relatives, which is in fact a human right violation of the elderly person, let alone humiliation. In this regard, the attitudes in the former SU seem to be different from some other countries. At the same time it should be taken into account that alcohol is contraindicated in certain diseases, and incompatible with some drugs<sup>70</sup>, which necessitates competent advice. Experience of foreign countries should be studied; while it seems to be inevitable to invite authorized foreign experts and advisers. At the same time, clinical attachment of Russian doctors abroad should be encouraged<sup>71</sup>. More international trust is needed for that. Improvement of professional skills and remuneration of the employees of the homes for the aged and psychiatric facilities is necessary, whereas the question of human rights in such facilities should not sink into oblivion<sup>72</sup>. According to the principle of medical and common ethics, the society must care of its unprotected members, including aged persons suffering of alcoholism and alcohol-related dementia.

### References

- 1. McKee M. Alcohol in Russia. Alcohol Alcohol. 1999;34:824-9.
- Jargin SV. On the causes of alcoholism in the former Soviet Union. Alcohol. 2010;45:104-
- 3. Fleming PM, Meyroyan A, Klimova I. Alcohol treatment services in Russia: a worsening crisis. Alcohol Alcohol. 1994;29:357-62.

4. Bazhin AA. Experience with treatment of alcoholic patients with chlorazicin combined with rational psychotherapy. Zh Nevropatol Psikhiatr Im S S Korsakova. 1976;76:909-11.

- 5. Ivanets NN, Vinnikova MA. Alcoholism. Moscow, MIA, 2011.
- 6. Johnsen J, Morland J. Depot preparations of disulfiram: experimental and clinical results. Acta Psychiatr Scand Suppl. 1992;369:27-30.
- 7. Wilson A, Blanchard R, Davidson W, McRae L, Maini K. Disulfiram implantation: a dose response trial. J Clin Psychiatry. 1984;45:242-7.
- 8. Nemtsov AV. Alcoholic History of Russia: Contemporary Period. Moscow, urss.ru, 2009.
- 9. Dovzhenko AR, Artemchuk AF, Bolotova ZN, Vorob'eva TM, Manuilenko IuA. Outpatient stress psychotherapy of patients with alcoholism. Zh Nevropatol Psikhiatr Im S S Korsakova. 1988;88:94-7.
- 10. Lipgart NK, Goloburda AV, Ivanov VV. Once more about A.R. Dobzhenko's method of stress psychotherapy in alcoholism. Zh Nevropatol Psikhiatr Im S S Korsakova. 1991;91:133-4.
- 11. Voskresenskii VA. Critical evaluation of ultra-rapid psychotherapy of alcoholism (concerning the article by A.R. Dovzhenko et al. "Ambulatory stress psychotherapy of alcoholics"). Zh Nevropatol Psikhiatr Im S SKorsakova. 1990;90:130-2.
- 12. Khudiakov AV. Psychotherapy and narcology: love without requital. Narkologiia. 2006;11:67-8.
- 13. Mendelevich VD, Zalmunin KY. Paradoxes of evidence in Russian addiction medicine. Int J Risk Saf Med. 2015;27:102-3.
- 14. Weller RA, Preskorn SH. Psychotropic drugs and alcohol: pharmacokinetic and pharmacodynamic interactions. Psychosomatics. 1984;25:301-9.
- 15. Serov VV, Popov MS, Zairat'iants OV. Pathologicoanatomic evaluation of the sequelae of medical manipulations. Arkh Patol. 1988;50:11-6.
- 16. Jargin SV. About the treatment of gonorrhea in the former Soviet Union. Dermatol Pract Concept. 2012;2:12.
- 17. Jargin SV. Invasive procedures with questionable indications. Ann Med Surg. 2014;3:126-9.
- 18. Treml VG. Study of employee theft of materials from places of employment. Berkeley-Duke occasional papers on the second economy in the USSR, 1990.
- 19. Potter-Efron RT, Carruth B. Shame, Guilt, and Alcoholism: Treatment Issues in Clinical Practice. New York, Haworth Press. 2002.
- Nuzhnyi VP, Kharchenko VI, Akopian AS. Alcohol abuse in Russia is an essential risk factor of cardiovascular diseases development and high population mortality (review). Ter Arkh. 1998;70:57-64.
- 21. Nuzhnyi VP. Toxicological characteristic of ethyl alcohol, alcoholic beverages and of admixtures to them. Voprosy Narkologii. 1995;(3):65-74.
- 22. Govorin NV, Sakharov AV. Alkohol-related Mortality. Tomsk, Ivan Fedorov, 2012.

- 23. Razvodovsky YE. Consumption of noncommercial alcohol among alcohol-dependent patients. Psychiatry J. 2013;2013:691050.
- 24. Davydov MI, Zaridze D G, Lazarev AF, Maksimovich DM, Igitov VI, Boroda AM et al.. Analysis of mortality in Russian population. Vestn Ross Akad Med Nauk. 2007; 7:17–27.
- 25. Ryan M. Alcoholism and rising mortality in the Russian Federation. BMJ. 1995;310:646-8.
- 26. Jargin SV. Cardiovascular mortality trends in Russia: possible mechanisms. Nat Rev Cardiol. 2015;12:740.
- 27. Jargin SV. Societal and political will for cancer prevention in Russia. Lancet Oncol. 2014;15:e298.
- 28. Jargin SV. Elder abuse and neglect vs. parricide: a letter from Russia. J Elder Abuse Negl. 2014;26:341-4.
- 29. Ivanets NN, Anokhina IP, Strelets NV. The current status of the drug abuse problem in Russia. Zh Nevrol Psikhiatr Im S S Korsakova. 1997;97:4-10.
- 30. Anokhina IP, Ivanets NN, Drobysheva VIa. Main advances in studies of drug abuse, toxicomania, alcoholism. Vestn Ross Akad Med Nauk. 1998;7:29-37.
- 31. Grigoriev P, Andreev EM. The huge reduction in adult male mortality in Belarus and Russia: is it attributable to anti-alcohol measures? PLoS One. 2015;10:e0138021.
- 32. lushchuk ND, Znoiko OO, Dudina KR, Belyi PA. The problem of viral hepatitis C in the Russian Federation. Ter Arkh. 2014;86:77-81.
- 33. Kopyt NIa, Gudzhabidze VV. Effect of alcohol abuse on the health indices of the population. Zdravookhr Ross Fed. 1977;6:25-8.
- 34. Vertkin AL, Zairat'iants OV, Vovk El. Final Diagnosis. Moscow, Geotar-Media, 2009.
- 35. Paukov VS, Erokhin luA. Pathologic anatomy of hard drinking and alcoholism. Arkh Patol. 2004;66:3-9.
- 36. Joshi PC., Guidot DM. The alcoholic lung: epidemiology, pathophysiology, and potential therapies. Am J Physiol Lung Cell Mol Physiol. 2007;292:L813-23.
- 37. Jargin SV. Surfactant therapy of pulmonary conditions excluding those with primary surfactant deficiency and bronchoscopy as delivery method: an overview of Russian patents and publications. Recent Pat Drug Deliv Formul. 2013;7:134-7.
- 38. Jargin SV. Some Aspects of Renal Biopsy for Research. Int J Nephrol Kidney Failure. 2015;1(2).
- 39. Jargin SV. Acute pancreatitis and alcohol in Russia. Archives Medical Review Journal. 2016;25:113-7.
- 40. Razvodovsky YE. Alcohol consumption and pancreatitis mortality in Russia. JOP. 2014;15:365-70.
- 41. WHO. Global Status Report on Alcohol and Health 2014. Geneva, World Health Organization,
- 42. Barreto SG, Saccone GT. Alcohol-induced acute pancreatitis: the 'critical mass' concept. Med Hypotheses. 2010;75:73-6.

43. Hantson P, Mahieu P. Pancreatic injury following acute methanol poisoning. J Toxicol Clin Toxicol. 2000;38:297-303.

- 44. Luzhnikov EA. Medical Toxicology: National Manual. Moscow, Geotar-Media, 2014.
- 45. Ostapenko YN, Brusin KM, Zobnin YV, Shchupak AY, Vishnevetskiy MK et al. Acute cholestatic liver injury caused by polyhexamethyleneguanidine hydrochloride admixed to ethyl alcohol. Clin Toxicol (Phila). 2011;49:471-7.
- 46. Asiedu-Gyekye IJ, Mahmood AS, Awortwe C, Nyarko AK. Toxicological assessment of polyhexamethylene biquanide for water treatment. Interdiscip Toxicol. 2015;8:193-202.
- 47. Asiedu-Gyekye IJ, Mahmood SA, Awortwe C, Nyarko AK. A preliminary safety evaluation of polyhexamethylene guanidine hydrochloride. Int J Toxicol. 2014;33:523-31.
- 48. Autian J. Toxicity and health threats of phthalate esters: review of the literature. Environ Health Perspect. 1973;4:3-26.
- 49. Wams TJ. Diethylhexylphthalate as an environmental contaminant: a review. Sci Total Environ. 1987;66:1-16.
- 50. Third national report on human exposure to environmental chemicals. Atlanta, Georgia, National Center for Environmental Health Division of Laboratory Sciences. 2005.
- 51. Plunkett ER. Handbook of Industrial Toxicology, 3rd edition. London, Arnold, 1987.
- 52. Khaltourina D, Korotayev A. Alcohol control policies and alcohol-related mortality in Russia: Reply to Razvodovsky and Nemtsov. Alcohol Alcohol. 2016;51:628-9.
- 53. Khaltourina D, Korotayev A. Effects of specific alcohol control policy measures on alcohol-related mortality in Russia from 1998 to 2013. Alcohol Alcohol. 2015;50:588-601.
- 54. Nemtsov AV, Razvodovsky YuE. Alcohol situation in Russia: 1980-2005. Soc Clin Psychiatry (Moscow). 2008;18:52-60.
- 55. Khaltourina DA. Alcohol policy: global experience and Russian realities. Narkologiia. 2007;5:10-8.
- 56. Khaltourina DA, Korotayev AV. Russian Cross: Factors, Mechanisms and Ways out of the Demographic Crisis in Russia. Moscow, urss.ru, 2013.
- 57. Radaev V. Impact of a new alcohol policy on homemade alcohol consumption and sales in Russia. Alcohol Alcohol. 2015;50:365-72.
- 58. Perlman FJA. Drinking in transition: trends in alcohol consumption in Russia 1994-2004. BMC Public Health. 2010;10:691.
- 59. Goss PE, Strasser-Weippl K, Lee-Bychkovsky BL, Fan L, Li J et al.. Challenges to effective cancer control in China, India, and Russia. Lancet Oncol. 2014;15:489-538.
- 60. Korthuis RJ. Introduction to the special topics issue on alcohol and cardioprotection. Pathophysiology. 2004;10:81-2.

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- 61. Wiśniewska P, Śliwińska M, Dymerski T, Wardencki W, Namieśnik J. Application of gas chromatography to analysis of spirit-based alcoholic beverages. Crit Rev Anal Chem. 2015;45:201-25.
- 62. Jargin SV. Health care and life expectancy: a letter from Russia. Public Health. 2013;127:189-90.
- 63. Shield KD, Rehm J. Russia-specific relative risks and their effects on the estimated alcoholattributable burden of disease. BMC Public Health. 2015;15:482.
- 64. Jargin SV. Changing pattern of alcohol consumption in Russia. Adicciones. 2013;25:356-7.
- 65. Urumbaeva RN. On influence of different factors on the scale of illegal market of alcohol in Russian Federation. Manufacture of Alcohol and Liqueur & Vodka Products (Moscow). 2009;3:4-5
- 66. Babor T, Caetano, R, Casswell, S, Edwards G, Giesbrecht N et al. Alcohol: No Ordinary Commodity. Research and Public Policy, 2nd edition. New York, Oxford University Press, 2010.
- 67. Uglov FG. Suicides. Newspaper "Vozrozhdenie", Suppl. Saint Petersburg, 1995.
- 68. Jargin SV. On the endoscopic methods used with questionable indications. J Surgery. 2016;4:6.
- 69. Jargin SV. Hypothesis: overestimation of Chernobyl consequences. J Environ Occup Sci. 2016;5:59-63
- 70. Sacco P, Burruss K, Smith CA, Kuerbis A, Harrington D. et al.. Drinking behavior among older adults at a continuing care retirement community: affective and motivational influences. Aging Ment Health. 2015;19:279-89.
- 71. Jargin SV. Psychiatry in Russia: economic upturn must bring improvements. Rev Bras Psiquiatr. 2010;32:460-1.
- 72. Jargin SV. Gilyarovsky and Gannushkin psychiatric hospitals in Moscow. Hektoen Int. 2015; Fall.

Correspondence Address / Yazışma Adresi

Sergei V. Jargin Peoples' Friendship University of Russia 6, Miklukho-Maklay Street Moscow, Russia e-mail: sjargin@mail.ru