

Heroin dependence in the Russian Federation: the current situation

**Alexander A. Kozlov, Vladimir V. Perelygin, Maya L. Rohlina,
and Konstantin V. Vyshinsky**

Summary

This article reviews the current situation surrounding heroin addiction in the Russian Federation; it describes the epidemic patterns associated with that addiction, including their negative impact and complications (HIV, hepatitis, asocial behaviour, mortality). The need to search further for effective integrated approaches to prevention, treatment and rehabilitation is demonstrated with reference to the attitudes of progressive scientists, to the historical experience of Russian addictive psychiatry and to the recommendations of the WHO. The proposal is made that there should be an ongoing search for a differentiated approach and for appropriate criteria to be adopted in integrated treatments of HIV infection and other socially significant consequences of drug addiction; these will call for discussions on substitution therapy.

Key Words: Epidemiology of drug addiction - Russian
Federation - Drug addiction complications -
Substitution therapy

Drug dependency has become one of the top priorities in the range of problems faced by modern Russian society. The problem of illicit drugs currently poses a serious health threat to the population, because of the epidemic patterns of their use, the rapid increase in their prevalence among teenagers and women, and the explosive rise now occurring in HIV infection, hepatitis, STIs and tuberculosis among substance abusers. Illicit drugs are becoming more easily available; they comprise a wide variety of substances, and the average age of drug users continues to fall. Overdose-related mortality is rising every year. The scale and tempo of the spread of drug dependency in Russia is so high

Address for reprints: Alexander A. Kozlov, MD - Federal Center on Medical and Social Expertise (FCMSE) - Ivana Susanina St. 3, Moscow, Russian Federation
E mail aakozlov@inbox.ru

that they are affecting the physical and psychological health of Russia's citizens, and its social stability; this has become an issue of national safety.

Over a long period of time alcohol abuse was a more typical phenomenon in Russia. During the last few decades, however, significant changes have been observed in Russia among patients who request treatment for substance dependency. Even if patients with alcohol dependency are still prevalent in terms of absolute numbers, the rising incidence of drug dependency is becoming the dominant issue.

During the years between 1984 and 1996, the incidence of drug addiction rose to 13 times its initial value, and volatile inhalant addiction to 9 times its starting value. Analysis of the dynamics of drug dependency shows a significant deterioration in the situation over the last 10 years. In 1997 there were 88 thousand patients with drug addictions registered at medical institutions; this figure rose to 219,000 in 1999 (154.8 per 100,000 of the population), and to 343,000 in 2004 (223.5 per 100,000).

During the last 10 years, indicators tracking substance dependency, such as the illicit drug dependency syndrome, have increased to 5.5 times their initial level, and the prevalence of heroin dependency (which has been registered separately since 1999), has risen from 133.1 in 1999 to 211.6 per 100,000 of the population in 2003, i.e. to 1.6 times its initial level. In 2004 this indicator stood at 210.9 per 100,000 population ⁽⁴⁾(see Table 1).

In the 1980s and early 1990s a majority of drug addicts were using home-made opiates, but a significant increase in heroin abuse was observed in 1994-95. At the present time heroin users make up 87% of patients registered at state-supported treatment facilities. The indicator of the non-narcotic (volatile inhalant) dependence syndrome (known as 'toxicomania' in the Russian Federation) was 5.2 per 100,000 population in the 1980s, but since then it has doubled.

According to the Research Institute on Addictions at the Ministry of Health of the Russian Federation, the 'hidden' population of those who use illicit drugs regularly was as much as 7 times as high as the number of individuals registered as drug users at state-supported treatment facilities in 1998 ⁽⁴³⁾. If this ratio has remained unchanged, we would expect there to be over 2.5 or even over 3 million individuals with substance abuse in the general population. According to the estimates of some experts, the number of drug users in the Russian Federation is close to 5 million.

It should be mentioned that during the last 15 years the incidence of women registered for drug abuse has risen to 14 times its initial value. In 2000 the Russian health system registered 41,000 women with a diagnosis of drug dependency (53.9 per 100,000 of the female population), which made up 19.5% of all registered patients.

The use of narcotic and non-narcotic psychoactive substances (including illicit drugs, volatile inhalants and both types of substance without physical dependency, which is classified as a separate group) reaches its highest prevalence among younger age groups. The registered prevalence for these conditions is as high as 1,025.6 for 18-19 year olds, and 976.5 for 20-39 year olds per 100,000 within each population

Table 1. Patients with illicit drug abuse and non-narcotic substance abuse (volatile inhalants) registered at narcological dispensaries in the Russian Federation. Source: official statistical data collected by the end of each reporting year, per 100,000 population.

Year	Registered patients with drug dependency (all types)	Registered patients with opiate dependency	Volatile inhalants dependency
1995	44.0		5.2
1996	60.2		6.3
1997	82.6		7.8
1998	109.9		9.0
1999	154.8	133.1	10.1
2000	198.4	176.0	9.5
2001	233.2	209.4	9.5
2002	239.6	213.5	9.9
2003	222.0	211.67	10.6
2004	223.5	210.92	
2005			

group. The observed dynamics of incidence parameters for substance abuse now reflects substance use-related conditions in society at an epidemic level, with a tendency for frequencies to rise between 1995 and 2003^(18, 23). In addition, extremely disturbing signals related to drug use are coming from the Armed forces of the Russian Federation. During the last few years almost one out of every 12 army recruits has experimented with drugs; in other words, the problem of drugs is reaching the armed forces as new recruits arrive⁽²⁶⁾.

Another reason for anxiety is the growing number of complications related to heroin use. The rapid increase in numbers of intravenous drug users (IDUs), mainly due to the increase in heroin use prevalence, has resulted in a rise in cases of B and C hepatitis and in HIV infection within this group. During the last few years the prevalence of these infections has significantly increased as a result of intravenous drug use, turning into a situation of parallel epidemics^(3, 42).

IDU-related cases of B and C hepatitis and HIV infection have been registered in all the 89 administrative regions of the Russian Federation. An analysis of HIV prevalence has shown a 310-fold increase from 0.6 per 100,000 of the population in 1995 to 186.4 in 2003, marking an increase in incidence of 276 times. The number of diagnosed cases of HIV infection among intravenous drug users in January 2005 reached 2,081 per 100,000 survey participants (Table 2). Among opiate (mainly heroin) addicts, 80% were HIV-infected.

According to the Central Scientific Research Institute on Epidemiology⁽²⁾, intravenous drug use was identified as the infection factor in the overwhelming majority of those

Table 2. HIV parameters for the Russian Federation, 1987 - January 31, 2005

Year	Newly registered cases	All registered cases	Deaths among HIV positives	Total PLWHA	Prevalence, per 100,000 population	Annual incidence, per 100,000 population	Annual incidence increase ratio	% of all cases of infection
1987	726	726	-	726	0.5	-	-	-
1993	163	889	-	889	0.6	0.1	1.5	-
1994	201	1,090	169	921	0.6	0.1	1.2	0.4
1995	1,526	2,616	219	2,397	1.6	1.0	7.6	0.6
1996	4,365	6,981	282	6,699	4.6	3.0	2.9	1.6
1997	4,058	11,039	370	10,669	7.3	2.8	0.9	1.5
1998	19,953	30,992	549	30,443	20.9	13.7	4.9	7.4
1999	59,257	90,249	1,092	89,157	61.6	40.8	3.0	21.9
2000	88,422	178,671	2,750	175,921	121.5	61.3	1.5	32.6
2001	50,378	229,049	3,164	225,885	157.9	35.1	0.6	18.6
2002	39,505	270,826	4,152	266,674	186.4	27.6	0.8	14.6
2003	9,155	279,981	4,177	275,804	192.7	-	-	3.3
2004	2,081	305,805	5,416	300,389	210.1	-	-	-
2005 (Jan.)								

registered in 2003. 109,673 men and 26,676 women had become infected with HIV via intravenous drug use in Russia by December 31, 2003. The majority of those infected by HIV were in the 20-29 year age group (70,749 men and 16,447 women in 2003). At the present time, the distinctive feature of the HIV epidemic is its active development among women, including women who are intravenous drug users, especially in the 15-25 year age group. The proportion of women among those infected with HIV has reached 33%. Of these, 85% are of reproductive age (with 25% in the 15-20 year group and 50% in the 20-30 year group). Since 1997, the incidence of HIV-infected women has risen to 450 times its initial value. The prevalence of HIV among pregnant women has reached 114.7 per 100,000.

Within the last few years the epidemiological situation in Russia has undergone significant changes with respect to viral hepatitis, too. Before, the overwhelming majority of cases with hepatitis B and C were defined as 'intra-hospital' infections, but now most are related to drug injections. Currently, the number of cases related to medical procedures does not exceed 20%, while the proportion of those infected via drug injection has risen considerably. According to the World Health Organization, the risk of acquiring viral hepatitis for intravenous drug users is as high as 60-90%, compared with only 5% among the general population. In the Russian Federation intravenous drug use remains the dominant route for the transmission of infection; its structural incidence is now 60% for viral hepatitis B and as high as 90% for viral hepatitis C.

Once communities of drug users in a particular region become affected with HIV, this leads to the process by which the general population becomes infected in its turn via heterosexual contacts, which is the main route for HIV infection worldwide. This is related to a wide prevalence of unsafe sex practices, lack of knowledge about the problem and about methods of reducing health-related risks in the majority of the population. There is an involvement of intravenous drug users in the sex business (selling sex for money or drugs). One of the studies carried out in the Russian Federation has discovered that 80% of those infected with HIV used injected drugs and had had experiences of selling sex for money ⁽¹⁶⁾.

The WHO has supplied the following basic parameters relevant to HIV in Russia within the main groups at risk:

Estimated number of intravenous drug users: 1.5-3.5 million.

IDUs among PLWHA: 85% (Euro-WHO review, December 2004).

IDUs on ARV treatment: 50% (Euro-WHO review, December 2004).

Prevalence of HIV among intravenous drug users in some cities as high as 65%.

Significant numbers of intravenous drug users are involved in commercial sex work; 5-15% of all commercial sex workers (CSWs), and up to 48% of CSWs who use drugs intravenously, are HIV-infected. HIV prevalence among inmates is estimated at 2-4%; 42,000 prisoners are HIV-positive (crf Ministry of Justice of the Russian Federation, November, 2004).

It should be noted that the majority of patients with drug abuse have also got diseases

of the liver or myocardium, sexually transmitted diseases and even tuberculosis, as well as having a high suicide and mortality risk ⁽⁸⁾⁽¹⁸⁾⁽⁴⁾. According to official statistics, 70,000 (20%) of patients with drug abuse die each year as a result of overdoses or other causes (by comparison, 40,000 patients with alcohol dependency die annually).

Apart from the diseases and complications just mentioned, one result of long-term drug use is the development of a significant level of psychopathization among these patients, in some cases taking the form of a loss of moral and ethical values, the inability to work and antisocial tendencies. It should be stressed that drug use is changing individuals' social orientation due to social and professional incapacity and increases in numbers of criminal offences ^(13, 18, 24, 27).

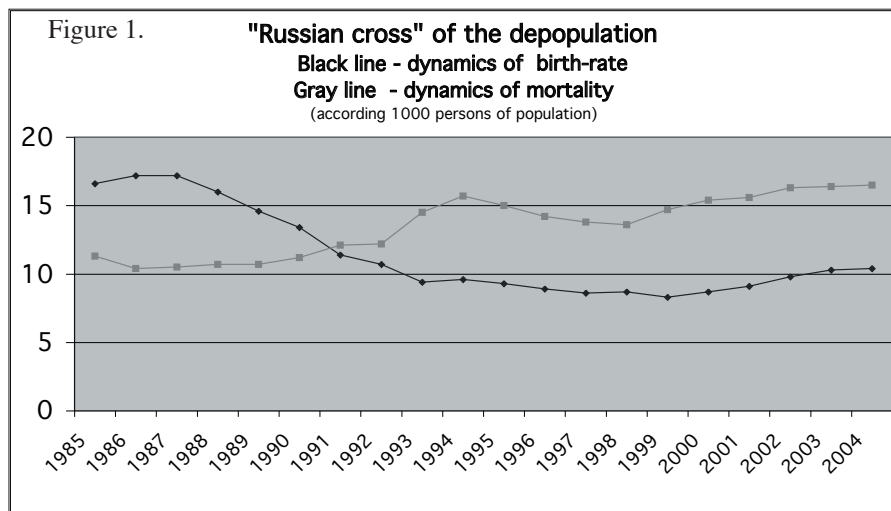
Drug-taking clearly requires large amounts of money. A long-term heroin user needs up to 1500 roubles (US\$50) daily to buy drugs. Naturally, for the overwhelming majority, there is no legal way to earn this money. Accordingly, drug use is an apprenticeship for crime.

The situation is inauspicious not only for drug users themselves, but also for their relatives and their immediate social environment; even the low level of psychological and physical health recorded among a significant proportion of young people has the potential to lead to the destabilization of Russian society in the near future. There are already official reports available about adverse demographic forecasts for Russia; one common linguistic phenomenon has become the many references made to the 'Russian cross' of depopulation. In this, a significant role is played by heroin dependency ^(1, 8, 18, 19) (see Figure 1).

Based on long-term historical experience comprising almost a hundred years of research, it can be stated with confidence that the models and programmes developed in Russian psychiatry and narcology for dependency treatment have been unable to contribute globally to combating addiction-related disorders and their consequences. 'Recoveries' do not happen, and remissions do not last long. In today's situation, using the methods of pharmacological therapy, it is only possible to cope with withdrawal and post-withdrawal conditions, and sometimes to 'achieve' more or less durable remission (5–10% lasting over 12 months) ^(21, 22, 37, 38, 41). According to the results given by the evaluation of treatment effectiveness, the conclusion must be drawn that pharmacotherapy alone is not enough to ensure long or stable remissions.

The low effectiveness of narcological (addiction treatment) services made available to patients with drug abuse can be partly explained by the precedence given to short-term medical interventions. This makes it impossible to dedicate due attention to personality disorders that are developing alongside drug abuse, or to psychological and social rehabilitation, especially prevention ⁽³⁹⁾.

At the same time, patients with drug dependency do not have an adequate understanding of their disease and therefore have no motivation to free themselves of it. Treatment at narcological facilities is perceived by patients not as a way to achieving recovery, but as a fine to be paid for the pleasures of drug use, and they try to avoid or postpone



such treatment in every way possible. This complicates the work of psychiatrists and narcologists (addiction psychiatrists) even more.

A large number of peer-reviewed publications have been devoted to various aspects of heroin addiction; most of them deal with the use of substitution therapy (methadone programmes), HIV infection, and, especially, social aspects. Almost all the researchers involved emphasize the need to combine medical care directed to combating HIV infection itself with substitution therapy based on methadone in treating HIV-infected drug addicts ^(15, 25, 31, 32, 34, 40, 44). In the authors' opinion, methadone substitution is a preferential method and, in the view of some researchers ⁽²⁵⁾, it is a unique therapeutic method for active heroin users with HIV infection.

At the same time a number of authors ⁽²²⁾ indicate that, unlike heroin and others opiates, mostly possessing a short period of action, methadone does not suppress the immune system – it actually stimulates it. This important characteristic of methadone has to be taken into account when HIV-infected drug users are included in methadone programmes. However, even supporters of methadone programmes specify a number of contraindications for the use of this approach ⁽¹²⁾.

Methadone treatment is not indicated:

- for individuals not suffering physically from opiate dependency;
- for individuals who used drugs only for a short period of time;
- for young people;
- for individuals who committed a relatively small number of criminal acts.

At the present time, the use of opiates in treating drug dependency is prohibited by the legislation of the Russian Federation (Position 6, Article 31 of the Federal Law, entitled: "On narcotic drugs and psychotropic substances").

However, the growing AIDS epidemic, which is leading to sharp increases in numbers of HIV-positive patients and those with AIDS among illicit drug users, requires a

change in treatment approach to such patients, and an updating of the existing legislation. For example, experts in infectious disease units in the city of Kaliningrad who have faced the problem of treating drug users with AIDS believe that the use of opiates for substitution therapy should probably be recommended ⁽¹⁰⁾. The use of substitution therapy is particularly urgent in infectious disease inpatient units which treat drug-using patients with AIDS and with concurrent severe infectious and somatic diseases, i.e. those in phase C* or in the terminal phase. The use of substitution therapy in these stages of a disease is primarily needed to improve the patients' condition and replace the intravenous route of administration with the oral route. At specialized units that treat HIV-infected patients suffering from drug dependency, the issue of substitution therapy is highly topical, as the use of illicit drugs in such units is, in practice, uncontrolled, and patients share needles, so increasing the possibility of additional infections with new strains of HIV and further worsening the epidemic.

Thus, substitution therapy for drug dependency (for example, with buprenorphine) can be recommended to patients with HIV in the final phase of the disease, with serious infectious and somatic complications, when traditional methods of treatment have hardly any effect. In oncological practice, prolonged action morphine in tablet form is now used. This form of morphine can also be recommended for the group of patients studied ⁽³⁸⁾. Despite the fact that Russian narcology is basically directed towards the biological, clinical, social and psychological aspects of treatment, research results show that studies on the issue of integrating methods of substitution therapy (at least for patients infected with HIV) are insufficient.

At the present moment, discussions about "methadone programmes" are taking place in the Russian media, accompanied by negative attitudes towards their possible use in this country, and by positive attitudes towards addressing HIV-infected drug users ^(6, 11, 17, 20, 28-30, 35, 36). Perhaps because methadone is considered to be an illicit drug that is prohibited in the territory of the Russian Federation, a memorandum has been issued, stating: "Say no to methadone programmes in the Russian Federation (methadone prescription cannot be considered a treatment)". Still, the position of the WHO has not changed, in view of the pandemic situation affecting intravenous drug users in Russia. According to the WHO, substitution therapy is an effective tool in programmes of harm reduction, now that the proportion of intravenous drug users among HIV-infected patients has nearly reached 80%. Substitution therapy will also lead to a reduction in illicit opiate consumption, criminal activity, and the number of lethal overdoses. In addition, the WHO considers substitution therapy to be a powerful tool in achieving ARV therapy compliance by intravenous drug users (which allows an improvement in general health among HIV-infected intravenous drug users), a treatment method that is more effective than placebo or detoxification alone, and also helps patients to resocialize.

We are convinced that the development of a differentiated set of approach and treatment criteria, taking into account the views of progressive Russian scientists and the recommendations of the WHO, would diminish the negative consequences of drug

addiction. It would also help to improve the effectiveness of preventive and medical interventions that aim to cope not only with affective disorders, cravings for drugs and behavioural disorders among patients with drug dependency (including HIV-positive ones), but also allow the implementation of rehabilitation as their objective. Bearing in mind the WHO strategy and the hundred-year experience of narcology (addiction psychiatry) in Russia, it is important to provide comprehensive, evidence-based research data and to ensure close collaboration with policy-makers, besides achieving greater improvements in the knowledge and expertise of practitioners, and more support for pilot initiatives and research.

According to the WHO information letter (June, 2005), a decision has been made to include methadone and buprenorphine in the additional list of recommended medications (Vladimir Poznyak, Coordinator, Mental Health and Drug Addiction Unit, WHO).

We hope for improvements in the drug use situation in the Russian Federation in the very near future, taking into account the information provided, as well as the implementation of the Federal Programme entitled: "Integral measures to combat illicit drug misuse and trafficking for 2005-2009", which has now been approved by the Russian Federation Government.

The history of Russian narcology began in October, 1907 when, within the Psychoneurology Institute (set up in June, 1907), an outpatient unit of the Society for the Care and Treatment of Alcoholics was organized. It was temporarily located in the Neurology Clinic of the Imperial Military Medical Academy, headed by V.V. Olderogge⁽⁹⁾. In 1911, an Experimental and Clinical Institute for the Study of Alcoholism (also called "The Anti-Alcohol Institute" and, since the beginning of 1914, sometimes referred to as "The Anti-Narcomanic Institute") was set up within the Psychoneurology Institute. Still in 1911, at the international exhibition in Turin, the project for this institute was awarded a diploma of honour, and, in 1913, at the International Anti-Alcoholic Congress in Paris, the world scientific community unanimously approved a resolution proposing that the government of Russia should organize an international research centre at the Anti-Alcohol Institute in St. Petersburg. In the years of the First World War, starting in 1914, the Anti-Alcohol Institute was reorganized into a military hospital. In 1919, within the Anti-Alcohol Institute, another institute was organized, called the Institute on Pathological Reflexology, with the primary goal of studying "issues related to mental traumas and the development of substance dependency, as well as resolving scientific and psychiatric problems which have been put forward by military and revolutionary events"⁽⁵⁾.

In the 20th century, the development of Russian narcology has always been accompanied by "public storms", one of which in 1912 once again prevented V.M. Behterev from receiving the Nobel Prize (V.M. Behterev's and I.P. Pavlova's polemics on the problem of struggling with alcoholism in Russia)^(14,33). During the next few years, the

development of narcology was defined by numerous normative documents issued by the supreme authorities of the country. The increase in funding and the creation of additional positions to implement these orders and decisions obviously played a positive role. In 1962 order No. 151 of the MoH of the RSFSR, entitled: "About measures to combat alcoholism and drug addiction" was issued; following this, the V.M. Bekhterev Institute carried out research on alcohol and drug abuse in the North-West of Russia. The "bio-psycho-social" model that had been created by V.M. Bekhterev in the beginning of the 20th century was used as the basis of the struggle against alcohol and drug dependency. It not only stressed the significance of pharmacotherapy, but also suggested a psychotherapeutic solution for substance dependency treatment (the "Bekhterev triad") and spoke about the unique role of social factors ⁽⁷⁾.

In this way, the V.M. Bekhterev Institute became the assignee of Russian narcology. Afterwards, following the Decree of the USSR Council of Ministers of May, 16, 1972, No. 362, entitled: "About measures to strengthen the struggle against drunkenness and alcoholism" and corresponding orders issued by the Ministry of Health of the USSR (in the decisions of the Ministry of Health Board taken on July 24, 1975), the narcological service was organized as an independent practical part of psychiatry, a structure without analogues in other countries. At the same time, the Serbskij Central Research Institute of Criminal Psychiatry was given the task of organizing, on the basis of two 'labour and treatment dispensaries', an experimental base for the development of new forms and methods of treatment for patients with alcohol and drug dependency, so as to increase the overall effectiveness of these establishments. Ten years later, on June 30, 1985, the National Research Centre on Addictions was organized within the Ministry of Health of the Russian Federation; over the last 20 years, it has become the leading research institution for the study of problems of dependency both in Russia and the countries of the CIS.

References

1. FEDERAL CENTER ON MEDICAL AND SOCIAL EXPERTISE (1995-2004): Demographic Yearbook of Russia. Goskomstat of Russia, Moscow.
2. MEDICAL DEPARTMENT OF THE RUSSIAN FEDERATION STATE SERVICE OF NARCOTRAFFIC CONTROL, MOSCOW (2004): HIV-infection: Newsletter No. 26. CRIOE, Federal Research and Methodology Centre on Prevention and Combating AIDS, Moscow.
3. LIV. (2004): Virus hepatitis among intravenous drug users: prevention, symptoms, treatment, HIV co-infection. Collection of articles. "AIDS Foundation East-West", Moscow.
4. KOSHKINA E. A. (2005): Prevalence of narcological frustration in Russia in 2003-2004. The brief statistical collection. SNC narcology of federal state agency of public health services and social development, Moscow.
5. GUIDELINES ON REGULATIONS ABOUT PATHOLOGO-REFLEXOLOGY

- INSTITUTE (1919). The central state archive for scientific and technical documentation, St. Petersburg.
6. AJZBERG O. R. (2004): Substitution therapy for opiate dependence (review). *Narcology and Addictology*. Collection of proceedings,. Kazan. pp. 44-79.
 7. AKIMENKO M. A., ERYSHIV O. F. (2004): Contribution of the V.M. Bekhterev Institute to the development of narcology in the 20th century. *Bekhterev Review of Psychiatry and Medical Psychology*. 3 19-22.
 8. AKOPYAN A. S., HARCHENKO V. I., MISHIEV V. G. (1999): Health and mortality of children and adults of reproductive age in modern Russia. Republican Centre for Human Reproduction, Moscow.
 9. AMBULANCE STATION OF THE SOCIETY FOR THE CARE AND TREATMENT OF ALCOHOLICS (1907): Archive of the V.M. Behterev Memorial Museum, F. 3, Storing unit 88. . Psycho-neurology Institute, Moscow.
 10. AMENITSKIY V. A., DREJZIN A. A., TSETLIN M. G. (1997): Epidemic of a HIV-infection Among Drug Users in the Kaliningrad Region: Experience of Work in Narcological Clinic. *Questions of Narcology*. 1 42-49.
 11. BABAYAN E. A. (2001): The decline of methadone programs. *Independent Psychiatry Journal*. 3 8-11.
 12. BELL J., DIGIUSTO E., BYTH K. (1992): Who should receive methadone maintenance? *Br J Addict*. 87:(5) 689-694.
 13. BERESTOV A. (2001): Return into life. Mindsolicitude Center in the Name of St. Joahn Kronshtadsky, Moscow.
 14. BLOCH A. M. (2001): Soviet Union in the interior of Nobel Prizes. Facts. Documents. Comments. In: MELUA A. I. (Ed.). St. Petersburg. pp. 18-19.
 15. BOWERSOX J. A. (1994): Drugs and AIDS. *NIDA Notes*. 9:(3) 62-63.
 16. DOLZHANSKAJAN. A. (2004): Modern approaches to preventive maintenance and treatment of HIV infection in connection with the use of narcotic and other mental substations. . *Narcology and addictionology*. Collection of proceedings. Kazan. pp. 99-121.
 17. DOLZHANSKAJAN. A., EGOROV V. F., KHARKOV N. V. (1994): Methadone therapy: a substantiation of its application, a history of its introduction, an estimation of its efficiency (review). *Questions of Narcology*. 2 4-12.
 18. EGOROV V. F., KOSHKINA E. A., KORCHAGINA G. A., SHAMOTA A. Z. (1998): Narcological situation in Russia (according to official medical statistics for 1996). *Russian Medical Magazine*. 6:(2) 109-114.
 19. GERASIMENKO N. F. (1997): The Russian cross of depopulation. *Courier of Medicine*. 4:(5) 6-8.
 20. GOFMANN G. (1994): About prospects for introducing methadone programmes into domestic narcology. *Questions of Narcology*. 2 23-25.
 21. IVANETS N. N., VINNIKOVA M. A. (2001): Heroin Dependence (clinical, and its treatment after abstinence conditions). *Medpraktika*, Moscow.
 22. JOSEPHH. (1994): Methadone Maintenance Treatment. Education Series Number

4. National Alliance of Methadone Advocates, New York.
23. KOSHKINA E. A., KIRGHAKOVA V. V. (2004): Prevalence of narcological frustration in Russia in 1999-2003. The Statistical Collection: the National Centre for the Science of Narcology, Moscow.
24. KOZLOV A. A., ROHLINA M. L. (2000): The narcomanic person. *Neurology and Psychiatry*. 7 23-27.
25. KOZLOV A. A., ROKHLINA M. L., TCHISTYAKOVA L. A., DVORINA I. D. (2003): Clinical pictures and treatment of psycho-organic syndrome in drug addicts. *Heroin Add & Rel Clin Probl*. 5:(3) 43-52.
26. LITVINCSEV S. V. (2002): Organization of narcological help in the Armed Forces of the Russian Federation on modern stage. *Narcology*. 4 2-6.
27. MAREMMANI I., PACINI M., LOVRECIC M. (2004): Clinical foundations for the use of methadone in jail. *Heroin Add & Rel Clin Probl*. 6:(2) 53-67.
28. MENDELEVICH V. D. (2004): Problem of narcotism in Russia: collision of interests of experts, patients, societies and authorities (clinical-sociological research). School, Kazan.
29. NADEZHGIN A. B. (2001): To a question on « replacement therapy: a patient's heroin narcomania. *Questions of Narcology*. 5 66-71.
30. NAIDYONOVA N. G. (1994): Methadone for patients' opiate narcomania. *Questions of Narcology*. 2 25.
31. O'CONNOR P. G., SELWYN P. A., SCHOTTENFELD R. S. (1994): Medical care for injection-drug users with human immunodeficiency virus infection. *N Engl J Med*. 331:(7) 450-459.
32. PANI P. P., TROGU E., CARBONI G., PALLA P., LOI A. (2003): Psychiatric severity and treatment response in methadone maintenance treatment programmes: New evidence. *Heroin Add and Rel Clin Probl*. 5:(3) 22-36.
33. PAVLOV I. P. (1912): Experimental institute for strengthening domination over alcohol on Russian territory. *Russian Doctor*. XI:(20) 700-702.
34. PAYTE J. T. (1989): Combined treatment modalities: the need for innovative approaches. *J Psychoactive Drugs*. 21:(4) 431-434.
35. PELIPAS V. V. (2004): Methadone replacement therapy for patients' narcomania. *Narcology and addictology. The collection of proceedings*. Kazan. pp. 20-39.
36. PJATNICKAJA I. N. (1994): To a question on the application of methadone. *Questions of Narcology*. 2 25.
37. ROHLINA M. L., KOZLOV A. A. (2001): Narcomania. Medical and Social Consequences. Treatment. Anarchist Press, Moscow.
38. ROHLINA M. L., KOZLOV A. A. (2002): Therapeutic approaches to patients' heroin narcomania, infected HIV-Infection. *Heroin Narcomania: Actual Problems*. In: ZVARTAU E. E. (Ed.) The collection of proceedings. 133-142.
39. SIDOROV P. I. (2005): *Narcological preventology: its management*. Genuis, Moscow.
40. SORENSEN J. L., BATKI S. L., GOOD P., WILKINSON K. (1989): Methadone

- maintenance program for AIDS-affected opiate addicts. *J Subst Abuse Treat.* 6:(2) 87-94.
41. UZBEKOV M. G. (2003): Modern approaches to therapy of illnesses of dependence: antaxone. *Social and Clinical Psychiatry.* 13:(2) 172-177.
 42. VALENTIK J. V., SAVCHENKO L. M. (2003): HIV/AIDS: Prevention among Drug Users (a manual for physicians). "Calligrapher", Moscow.
 43. VYSHINSKY V. K. (1999): Studying the prevalence of psychoactive substance use, the example of Moscow. National Research Centre of Narcology, Moscow.
 44. WARD J., DARKE S., HALL W., MATTICK R. (1992): Methadone maintenance and the human immunodeficiency virus: current issues in treatment and research. *Br J Addict.* 87:(3) 447-453.

Received October 17, 2005 - Accepted January 10, 2006



CALL FOR PAPERS

PHYSIOLOGY OF PLEASURE AND REWARD

Based on your interest and research activity in the field of behaviour physiology, psychology, psychiatry, on behalf of The European Opiate Treatment Association (Europad), we would like to extend a cordial invitation for you to submit a paper concerning the physiology of pleasure and reward in humans. One chosen work will be awarded during the next Europad congress (Bratislava October 6-8, 2006).

Requirements

Papers are welcome, which are not under consideration for publication elsewhere, and adhere to following requirements:

- papers must not provide with evidence from clinical populations or subjects displaying altered reward-seeking behaviours, such as drug abusers or drug addicts, or subjects with impulse control disorders of an appetitive kind, or subjects with enhanced or depressed reward-seeking functions, such as depressed or manic patients. In fact, the object of research is intended to be human physiology, in the absence of any impairment of pleasure-related functions.
- Data shall be presented in the form of a statistical elaboration. No case-reports or case-series are considered acceptable.
- Works may consist in a variety of models, including epidemiological studies, observational studies, research designs in which healthy subjects, challenged with stimuli and reward- or pleasure-related parameters are measured.
- Data of interest include social, environmental and demographic features, genetic profiling, direct behavioural measurements, personality features, neurophysiologic measurements, endocrine parameters, brain imaging.
- Papers should include the statement that all ethical requirements (e.g. informed consent) have been fulfilled in accordance with the Declaration of Helsinki.

Procedure

A special committee will select submitted papers and make a check the pertinence of submitted papers to the focus of interest along the above criteria. Authors of selected papers will be invited to provide a poster version of their work to be displayed during the next Europad congress, taking place October 6-8, 2006 in Bratislava. The committee will choose one work, whose authors will be awarded with 1.000,00 Euros

Original papers must be submitted by e-mail to the following address: maremman@med.unipi.it

•

Icro Maremmani, President of EUROPAD
Maurizio Mian, Psychopharmacologist and Researcher
Matteo Pacini, President of EUROPAD-Italia