



Report on the Problematic Use of Psychoactive Medicines in the Czech Republic 2023

Summary

Public health impact of the problematic use of psychoactive medicines

- The umbrella definition of medicines abuse includes any use of a medicine that has been shown to be problematic. This includes, for example, the use of a medicine obtained with or without a prescription but clearly outside accepted medical procedures or guidelines, use for recreational purposes (for its psychoactive effects) or for self-medication, where the risks and problems associated with use outweigh the benefits.
- The misuse or abuse of psychoactive medicines affects a relatively large proportion of the population and is the cause of health disorders and adverse social impacts on users, as well as on their close ones.
- In principle, two groups of psychoactive medicines misusers can be distinguished: (1) people suffering from a variety of health problems whose primary motive is to treat those problems, who lose control over their use of the medicines, (2) people addicted to addictive substances, including alcohol or illicit drugs, who use psychoactive medicines as a substitute for or in addition to other drugs, or to relieve withdrawal symptoms.
- The typical impact of the long-term abuse of psychoactive medicines is the development of addiction. Addiction is often of iatrogenic origin, caused by inappropriate indication and treatment of various conditions where the risk of addiction is inadequately controlled by the doctor. Cross-addiction can also occur, when psychoactive medicines are prescribed to abstinent addicts without sufficient control, leading to their relapse into addiction.
 - Psychoactive medicines are often overused as self-medication for sleep problems, anxiety, pain, etc., and people are often unaware of the addictive potential of the medicines they are using.
- The most commonly abused groups of medicines in the Czech Republic include medicines with sedative, hypnotic and anxiolytic effects (mainly benzodiazepines and Z-hypnotics), and opioids. Misuse also occurs in relation to other medicines from the stimulant group, antiepileptics (e.g., pregabalin) and others.
 - A specific problem concerns the use of buprenorphine from the illicit market by at-risk/intravenous drug users, and the misuse of medicines containing pseudoephedrine and ephedrine for the illicit production of methamphetamine.
- Addressing the problem of the misuse of psychoactive medicines should be a complex, multidisciplinary process, encompassing the full spectrum of interventions from control of the prescription of psychoactive medicines, monitoring of the course of treatment, comprehensive support for patients, through training of health professionals in treatment using psychoactive and addictive medicines, the risks of long-term use or the use of combination of medicines and medicine misuse and addiction, up to the early detection of the development of addiction and the provision of professional addictology care.

Regulation and policy on the misuse of psychoactive medicines

- The basic legal framework covering the misuse of psychoactive medicines is provided by Act No. 378/2007 Coll., on Pharmaceuticals. Misuse of medicinal products under this Act means the deliberate overuse of medicinal products or the deliberate use of medicinal products in a manner that is in contrary to their intended purpose.
- In the Czech Republic, the policy on the misuse of psychoactive medicines is a part of the addiction policy, which has integrated the topics of licit and illicit substances and behavioural addictions since 2014. The main strategic documents determining the focus of addiction policy are the *National Strategy for the Prevention and Reduction of Harm Associated with Addictive Behaviour 2019-2027* and the *Addiction Policy Action Plan 2023-2025*.
- The protection of health against the harmful effects of addictive substances, including psychoactive medicines, as well as the supervision of pharmaceuticals, falls under the competence of the Ministry of Health, and the State Institute for Drug Control, which is responsible for the pricing and reimbursement of pharmaceuticals, their clinical evaluation and registration, supervision of advertising, the production, preparation, sale, distribution, dispensing of pharmaceuticals and their safety, including their abuse.
- The basic measure to prevent the misuse of medicines is provided by prescription or restricted dispensing (either prescription or non-prescription). Medicines should be classified as restricted when, inter alia, they are likely to cause very serious adverse reactions or pose a significant risk of abuse.
 - The *Register for Restricted Medicinal Products* is a practical tool of ensuring that the prescription and dispensing of a medicinal product is limited to the appropriate quantity and duration. However, the registry is not sufficiently used in practice for regulation of the dispensing of psychoactive medicines.
 - In October 2023, there were only 5 products in the category of restricted medicinal products for which it is obligatory to keep a dispensing record in the *Register for Restricted Medicinal Products*, none of which were sedatives, hypnotics and/or anxiolytics or opioids.
- Act No. 167/1998 Coll., on Addictive Substances, is the basic legal framework covering the handling of narcotic drugs and psychotropic substances, including medicines containing them. Health care workers, criminal justice agencies and statutory laboratories may handle drugs without special permission. Unauthorised handling of drugs is a criminal offence.
- The advertising of medicines aimed at the general population and professional community is strictly regulated by law; it is prohibited to advertise prescription medicines or medicines containing narcotic and psychotropic substances, i.e., psychoactive medicines, to the general population.

Psychoactive medicines market

- The availability of psychoactive medicines in the Czech Republic for treatment, but also for problematic use, is high. The psychoactive medicines mostly come from the official health system - people who abuse medicines get them from physicians of various specialties, so called doctor-shopping.
- If unable to obtain psychoactive medicines from a standard medical source, users obtain them from family or friends, on the Internet or on the illegal drug market.
 - One specific way of obtaining psychoactive medicines is by forging prescriptions or obtaining used drugs from medical or household waste.
 - Drugs used to treat opioid addiction enter the illicit market via people to whom they are prescribed. Preparations containing buprenorphine are mainly traded on the illicit market.



- The distribution of benzodiazepines in the Czech Republic is estimated at 43 million defined daily doses (DDD), or 4.8 daily doses of benzodiazepines per capita per year.
 - The most widely used or distributed benzodiazepines include alprazolam (e.g., Neuro), diazepam and clonazepam.
 - Over 83 million doses of Z-drugs were distributed to pharmacies in 2022, i.e., 7.7 daily doses per 1 inhabitant of the Czech Republic. Most of this amount is zolpidem (e.g., Stilnox).
- The volume of benzodiazepines and barbiturates distributed in the Czech Republic has long been decreasing, while the volume of sedatives from the Z-drug group has been increasing in the long term. Consumption of the antiepileptic and sedative drug pregabalin is also rising sharply – reaching 5.4 million doses in 2013 and 28.5 million doses in 2022.
- Consumption of opioid analgesics (e.g., morphine, hydromorphone, oxycodone dihydrocodeine, fentanyl) is increasing over the long term (54 million daily doses in 2022). More than 550 thousand daily doses of buprenorphine formulations for opioid agonist therapy were distributed in 2022.
- One widespread alternative source of obtaining psychoactive medicines is buying them on the Internet.
 - So-called new benzodiazepines, substances from the benzodiazepine group that are not registered medicines and are marketed as new psychoactive substances (designer benzodiazepines) are also available online. A total of 35 of these benzodiazepines are monitored in the EU.
 - Synthetic opioids, such as fentanyl derivatives, are also emerging as new synthetic drugs. Nowadays, 74 new synthetic opioids are being monitored in the EU. Both new benzodiazepines and new synthetic opioids have been identified in the Czech Republic.
- The medicines are also available on the illicit market along with other illicit drugs. Medicines containing ephedrine, pseudoephedrine or codeine are the source for the production of other drugs (methamphetamine, and braun, respectively), which are often injected. While braun use is rare, methamphetamine is the most common illicit drug used by at-risk drug users.
- In 2022, a total of 3,400 people were arrested for drug offences, i.e. offences involving the illicit production and trafficking in narcotic drugs and psychotropic substances, of whom 186 people were arrested in connection with psychoactive medicines (6%). In terms of the representation of each group of psychoactive medicines in drug offences, the largest proportion is represented by long-term medicines containing opioids and stimulants.
- The unauthorised possession of psychoactive medicines can also be punished as a misdemeanour - in 2022, 107 offenders were recorded for the unauthorised possession of small quantities of psychoactive medicines for personal use, particularly in relation to opioids and benzodiazepines.

Use of psychoactive medicines among children and young people

- Monitoring of the extent of psychoactive medicines use among children, adolescents and adults is not yet conceptualised – the topic of medicines use is only marginally included in studies, and there is no standard definition, screening tools or ways to monitor risky forms of medicines use. Various studies have looked at differently defined categories of psychoactive medicines.
- A total of 10% of 16-year-olds in the *ESPAD 2019* study reported having used a sedative or sleeping pill recommended by their doctor at least once in their lifetime, including 3% who had used a doctor-recommended medication for more than 3 weeks.
 - Altogether 7% of the respondents had at some point in their lives used sedative medicines without a doctor's recommendation; while 10% had used painkillers in order to get high.

Psychoactive medicines combined with alcohol (to get high) were used by 6% of 16-year-olds.

- A total of 14% of students reported having misused psychoactive medicines at least once in their lives, i.e., used medicines obtained without a prescription and/or in order to get high, with 5% reporting repeated misuse (i.e., for 3 or more times).
- Studies confirm that the transition from primary to secondary school is an important milestone in terms of exposure to addictive substances, including psychoactive medicines, and the type of school attended also plays a major role in gaining experience with addictive substances.
- There are subgroups of children and adolescents who report higher prevalence of psychoactive medicines use – for example, children from socioeconomically disadvantaged environment or children of Roma origin.

Psychoactive medicines use in the adult population

- The use of psychoactive medicines is approximately twice as prevalent among women and increases with the age of the respondents. While the use of opioid analgesics is predominant in younger age categories, the use of sedatives and hypnotics is significantly more prevalent in age categories over 35 years.
 - Approximately 12% of psychoactive medicines users obtained their psychoactive medicines without prescription (received from friends, bought over the counter in pharmacies or via the Internet).
- In 2022, about 8-13% of the adult population aged 15+ (7-12% of men and 9-14% of women) have used psychoactive medicines without a prescription or not in line with doctor's recommendation in the last 12 months. Looking at trends in the adult population over the last 5 years, there is a stable estimate of the prevalence of medicines use over the last 12 months, both among men and women.
 - Extrapolating the results to the entire population of the Czech Republic aged 15+, it is estimated that 740 thousand to 1.2 million people in the Czech Republic show signs of problematic use of psychoactive medicines.
- The 2022 study called *Physician of the Czech Republic* estimated 96-125 thousand people abusing or misusing sedatives, hypnotics, or anxiolytics, and 49-61 thousand people abusing or misusing opioid analgesics.
- The use of psychoactive medicines is relatively common among at-risk drug users, being usually used in combination with illicit drugs or alcohol.
- The use of psychoactive medicines in the prison population is comparable to that amongst the general population of the Czech Republic. Approximately 12% of inmates reported using psychoactive medicines without a prescription at some point during their time in prison.
- The population's attitudes towards the use of psychoactive medicines are tolerant in the long term, with approximately 31% considering the long-term use of psychoactive medicines acceptable. Only 10% of the population would ban the advertisement of over-the-counter medicines.

Impact of the problematic use of psychoactive medicines

- The health consequences of the use of psychoactive medicines are not systematically monitored in the Czech Republic.
- Development of addiction is the typical adverse impact of excessive psychoactive medicines use, causing the reduction of quality of life and disruption of social, family and occupational relationships and mental health. The most common problems include withdrawal with typical

symptoms such as insomnia, anxiety, tremors, body tension, muscle aches, headaches and stomach aches, fatigue and a downturn in mood.

- Elderly people are particularly at risk of developing addiction and associated psychological and somatic complications, loss of vitality, impaired motor coordination, including the risk of falls, injuries and accidents.
- A total of 64 fatal overdoses of illicit drugs, volatile substances, and psychoactive medications were reported in the *National Registry of Autopsies and Toxicology Examinations* by the Departments of Forensic Medicine in 2022 (64 in 2021), including 11 fatal benzodiazepine overdoses (10 in 2021). The opioid category (a total of 15 cases in 2022) also includes opioid analgesic overdoses. Detailed data on other psychoactive medications are not available for 2022.
- In recent years, the number of hospital admissions for injuries due to psychoactive medicines has been increasing (217 in 2021 and 248 in 2022).

Prevention of psychoactive medicines misuse

- Prevention of the misuse of psychoactive medicines is provided by doctors. When providing treatment with psychoactive medicines, they ensure the correct indication, dosage, duration of treatment and are obliged to regularly monitor and control the consumption of psychoactive medicines. Patients must be advised of the risks of addiction and, where indicated, must be instructed on how to control or reduce doses. Verbal counselling, guidelines encouraging reduction or patient brochures, screening and brief interventions are effective.
 - Brief interventions in primary care in the Czech Republic are currently targeted mainly at tobacco and alcohol, and to limited extent to illicit drugs. Little attention is usually paid to the use of psychoactive medicines in brief interventions.
 - Brief interventions for at-risk or heavy users of psychoactive medicines are implemented by 42% of physicians.
- Prevention measures include training for health professionals in the use of non-pharmacological approaches and medicines with lower addiction potential, improved monitoring and risk assessment of medicine misuse, monitoring of treatment and ensuring access to treatment in suspected cases of addiction. Training should also be targeted at pharmacists who can monitor the overuse or misuse of psychoactive medicines when they are dispensed.
 - In the Czech Republic, however, educational prevention programmes targeting physicians to control the consumption of psychoactive medicines among patients are not systematically implemented. The recommended practices of professional societies in the Czech Republic address the prevention of misuse and addiction during treatment with psychoactive medicines in a rather marginal way.
- There are several public information portals in the Czech Republic dedicated to psychoactive medicines and providing information on counselling options, e.g. the National Health Information Portal (nzip.cz), which includes a section entitled *Medicines addiction: what is it?*, or the website olecich.cz (*About Medicines*), aimed at raising public awareness of the topic of medicines use.
- The Czech Republic is regularly involved in international campaigns to mark *World Patient Safety Day*; the topic in 2022 was *Medication without Harm*.
- The issue of psychoactive medicines is included in school-based prevention, which is part of a broader framework for preventing risk behaviour among children and young people.
 - No information about specific prevention programmes aimed at preventing the abuse of psychoactive medicines among children and young people is available, and the topic of psychoactive medicines is probably only marginally covered in school prevention programmes.



Treatment of psychoactive medicines users

- > Early identification of the problem and early intervention are important in psychoactive medicines abuse. Brief interventions aimed at gradually reducing the dose to stopping the use of psychoactive medicines are an effective method for indicated patients.
- > If a user is developing a dependence, safe detoxification is carried out, which in the case of sedatives and hypnotics consists of replacing the abused benzodiazepine or Z-hypnotic with a long-acting benzodiazepine (diazepam) and gradually reducing its dosage, in combination with psychological support and counselling.
- > Treatment for addiction to psychoactive medicines is integrated into the addiction treatment system and is provided on both the outpatient and residential basis. There are currently an estimated 250-300 addictology programmes of various types in the Czech Republic, 90-100 of which are outpatient treatment programmes, 30-40 residential programmes and 40 aftercare programmes. Addiction treatment is also available in prisons.
- > Approximately 2.5 thousand users of sedatives and hypnotics, most often benzodiazepines (1.2 thousand), are in contact with addictology programmes each year. Approximately 2,000 people are in contact with outpatient programmes and approximately 400 people are hospitalised every year.
 - > The number of people misusing sedatives and hypnotics has gradually increased in recent years. The majority (74%) are aged 45+, with almost a quarter of patients (23%) in the 70+ age group. Women make up approximately 2/3 of patients.
- > Online counselling, web and mobile apps for addicts are on the rise. The only online counselling service specialised in providing help to users of psychoactive medicines is benzo.cz, run by SANANIM NGO. The *National Quitline* 800 350 000 covers all addictive substances.
- > In the last decade, a private segment of services has been developing, mainly aimed at helping problematic users of alcohol and illicit drugs and people with other addictive disorders, and new organisations and informal groups based on participatory activities have emerged.