Saratov scientists have created an autonomous device for medical diagnostics. With it, one can instantly test for alcohol and drugs, as well as independently check eyesight. Anyone can use the device even without special education. Currently, the device is already available on the market and may be in demand, for example, by emergency medical services. The novelty will also come in handy for traffic police officers - especially for drug testing. Now it is possible to reveal whether the driver took drugs only with the help of a urine test, which requires a long time.

The new device is a compact device with autonomous power supply, which allows to receive digital information about the anterior segment of an eye. To carry out self-diagnostics, a user needs to look through eyepieces (as in binoculars), after which the equipment begins to affect the eyes with the help of light radiation with specific wavelengths. They correspond to three primary colors perceived by human (red, blue and green). During the study, device registers the reaction of the pupil to the impact. In the presence of pathology, it will depend on the color that is demonstrated.

According to the developers, this method is much more objective than the standard diagnostic method, in which color tables are shown to the patient. When using this technique, both human factor and influence of illumination of the rooms where the tables are shown can be excluded,” said MD Valery Bakutkin, General Director of Zenitsa.

The feasibility of introducing such a diagnosis was confirmed at the Department of Ophthalmology at the Moscow Medical and Dental University (MGMSU).

Hardware study of color perception by the reaction of eyes is indeed possible with an accurate calibration of brightness of radiation, which can successfully replace paper check. However, such a method can be applied only when the equipment passes relevant certification tests, - said Sergey Anisimov, MD, Professor of the Department of Ophthalmology, MGMSU.

According to the developers, one of the main advantages of their invention is that measurements are carried out automatically. Then the received data is transferred via a standard USB cable to a computer, where it is processed using a special software. In the future, information can be instantly transmitted via the Internet to a doctor.
Currently, experts assess the condition of an eye relying on their own vision and experience and describe their observations using approximate estimates, the accuracy of which depends on visual acuity of the ophthalmologists themselves, - explained Valery Bakutkin.


**MINISTRY OF HEALTH AGAIN PROPOSES INTRODUCING “LYRIKA” INTO LIST OF POTENT SUBSTANCES**

The Ministry of Health of the Russian Federation once again offers to expand the list of potent and toxic substances, sale of which without a prescription entails criminal liability. It is proposed to include drugs containing pregabalin, tapentadol, and tropicamide that are popular among drug users.

The Ministry has developed and published a draft resolution on the Federal portal of draft regulatory legal acts.

Pregabalin, tapentadol and tropicamide are included in the list of medicines for medical use, subject to subject-quantitative accounting (PKU). Such drugs are sold strictly by prescription, however, according to the General Directorate for Drugs Control of the Ministry of Internal Affairs of Russia, pharmacies often ignore this rule, since at the moment illegal distribution of these drugs involves only administrative responsibility.

"An effective measure to counteract illicit distribution of drugs used by persons who are addicted to opioids on the PKU list, according to GUNK of the Russian Ministry of Internal Affairs, can be a measure that allows criminal charges against perpetrators," the Interior Ministry said.

In total, in 2017, Roszdravnadzor issued 86 prescriptions for the elimination of violations of the supply of PKU drugs. 286 protocols on administrative offenses were drawn up, of which over-the-counter sale of pregabalin is 152 cases, tropicamide is 134 cases, the authors of the draft resolution refer to statistics from Roszdravnadzor. The total amount of fines amounted to 9 million rubles.

Illegal sale of Lyrika (pregabalin) in some cases entailed loss of license by pharmacy chains. So, in Krasnodar in November 2018, "Christmas pharmacies" were closed. In 2017, 78 Moscow pharmacies got off with a fine for similar violations.

Nevertheless, the initiative to add drugs that are popular among drug users to the list of potent drugs does not go to its implementation. In July 2018, the Ministry of Health has already launched such an initiative, but changes in legislation have not been adopted. In parallel, the Ministry submitted a bill decriminalizing mistakes of doctors and pharmacists when using narcotic drugs and psychotropic substances that do not pose public danger.

ALTERNATIVE DEVELOPMENT PROJECT IN LAOS ENABLES FORMER OPIUM FARMERS TO LEARN ABOUT COFFEE CULTIVATION FROM EXPERTS

14 January 2019 - The United Nations Office on Drugs and Crime's (UNODC) alternative development programme in Lao PDR helps farmers move from cultivating opium to cash crops such as coffee. As part of this effort, UNODC enabled a group of new coffee farmers from the North of the country to participate in a week-long study visit to an already established community of coffee growers in southern Laos.

The new coffee farmers come from a community of 331 families from 12 villages in the Northern province of Huaphahn, where they face issues related to opium, poverty, addiction, and the remnants of war. Located within the geographical region called the 'golden triangle', an important occupation in this area has traditionally been opium cultivation. Families have been growing poppy for generations, feeding a vicious cycle of addiction, fear for law-enforcement, poverty and food insecurity.

UNODC's alternative development project has been working with the community since 2016 to establish a sustainable solution that breaks this cycle. The families have come together in cooperation under the name "Vanmai Coffee" to grow coffee instead of poppy. Vanmai means 'new day' in the local Lao language, symbolizing the community's hopes for a prosperous, healthy and sustainable future that coffee can bring for their villages.

In the last week of November 2018, Vanmai farmers travelled to the Bolaven Plateau in southern Laos to participate in a week-long study visit and learn from coffee experts and coffee farmers in the established coffee areas of the Plateau.

From learning about the processing of coffee beans to the essentials of a successful cooperative, the farmers gained confidence and knowledge to bring back to their villages. Along with technical trainings, highlights of the week included coffee tasting, barista tips and guidance on how to establish a coffee culture in the villages of Huaphahn.

"This study trip is exactly what we needed right now. Learning from experts at the Coffee Research Institute and with established farmers and cooperatives here, I have learned so much in just five days." said Mr. Jouma, a farmer from Huay Yam village.

"Study visits like this are extremely valuable. One thing is that the farmers can improve their technical knowledge on coffee, but the most important thing we see is that this really helps them get a vision and a plan for the future. Seeing with their own eyes how other smallholder farmers have taken charge of their own future by working together and focusing on value chains and quality products, is a real eye-opener," explained Erlend Audunson Falch, programmer manager at UNODC in Lao PDR.

Community members from Huaphahn said they are determined to make an income from coffee, but also want to educate others on the harm that illegal opium cultivation brings
to communities. Through blogs, the farmers also want to share their stories of struggle, hope, ambition and inform others about their community of resilient individuals living in one of the poorest communities of the region.

"We all want to improve our life for our families, we want to set up something that can be passed on to our children so they do not have to worry about their income. If we work together like this I am hopeful that we can achieve something good." says Mr. Jouma.

Vanmai Coffee's first commercial harvest is expected after the 2019 monsoon season. The community hopes that in the coming years their cooperative can grow and reach both domestic and international coffee markets.


**POLAND**

**POLAND PHARMACIES BEGUN SELLING MARIJUANA BY RECIPES**

Since January 17, marijuana has been legalized in Poland, which can now be purchased with a medical prescription.

The law on legalization of the sale of marijuana for medical use entered into force in Poland. Cannabis preparations can be produced in pharmacies on the basis of a doctor’s prescription from materials supplied from abroad, TASS reports.

On January 17, the only company licensed to supply marijuana from Poland by the Polish Chamber of Pharmacy, Canadian Spectrum Cannabis, reported that the first batch of the product - about 7 kg - was delivered to the country's pharmacies. From January 17, Poles may order a medication necessary for treatment by prescription.

One gram of dry product costs about 65 zlotys (\$17) in Polish pharmacies. In an illegal market, this acquisition would have cost 50 zlotys (\$13), but without any quality guarantee or information about the place of origin of cannabis. Medical marijuana is grown in laboratories.

According to preliminary estimates, in Poland about 300,000 patients need marijuana for medical purposes. There is no exact data on how much such a drug they need.

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