

Appropriate Use of Opiates to Adequately Control Pain but not to Facilitate Addiction

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People suffering from diseases that do not presuppose curing therapy need not only treatment but also palliative care. The latter is involved in the relief of pain and improving the quality of life of patients who have other symptoms that interfere with normal life: shortness of breath, anxiety, and depression. Every year, billions of people may need a remedy that alleviates pain without curing a variety of diseases. This includes diseases of the cardiovascular system, which account for almost 489 thousand deaths per year; cancer – about 100 thousand; respiratory diseases, almost 28 thousand; neurological disorders (including Alzheimer's disease) and 6.5 thousand AIDS. One of the key components of palliative care is pain relief. Moderate/acute pain is observed in about 80% of advanced cancer patients and in a significant number of AIDS patients and other chronic and incurable diseases. Existing medical knowledge allows coping with pain in most cases, but the public health system does not provide effective treatment and does not provide support for relatives of such patients. This is connected with the problems of the general health policy, the training of specialists, and the availability of drugs: inadequate integrity, activity, and coordination in the activities of state bodies; unnecessarily burdensome drug regulation; lack of proper training and clinical practice in the field of palliative care for health workers.

Introduction

Appropriate use of opiates to adequately control pain but not to facilitate addiction is outlined in this report and it leads to a violation by the U.S of the right to the highest attainable standard of health guaranteed by the Worldwide Covenant on Economic, social, and Cultural Rights, and possibly to the violation of the prohibition of torture and cruel, inhuman or degrading treatment. Further inactivity will also mean retaining in the national medical practice a fundamental gap with standards and maintaining a situation in which health workers will have to go on to violate the law, and patients – suffer unnecessarily.

All medical staff must undergo a basic course of palliative care and pain management. For those whose specialty often has to deal with chronically or terminally ill patients, in-depth training and clinical practice should be provided. The government should promptly amend the restrictive and burdensome procedure for licensing health facilities for the storage, prescription, or dispensing of opioid analgesics, and simplify the procedure for their prescription, which currently prevents the timely use of morphine in the treatment of pain. The burdensome procedure for issuance should be reviewed, and a complex and costly accounting system should be improved. Inspections of opioid-operated medical institutions should be carried out in such a way as to minimize the impact on the

provision and accessibility of health care, and the criminal code should provide for various responsibilities for the willful and unintentional violation of the treatment of opioid drugs. This study found that in situations where strong opioid analgesics are available; their use fundamentally differs from five basic principles, which, as a rule, are ignored.

Literature Review

The usual method of treatment for an overdose of opium preparations is an intravenous or intramuscular injection of an opioid naloxone antagonist at an initial dose of 0.4 mg (1 ml) or 0.01 mg/kg. If the effect does not occur within 3-10 minutes, the naloxone injection is repeated. Since the effectiveness of naloxone is reduced after 2-3 hours, it is important to establish monitoring of the patient for at least 24 hours after an overdose of heroin and within 72 hours after an overdose of long-acting opioids, such as methadone. If malicious drug addicts are exposed to such treatment, then within 2-8 hours after the initiation of treatment with an opioid antagonist, they develop symptoms of opioid withdrawal. However, the correction of this syndrome cannot be adequately carried out until the basic life parameters become relatively stable (Schuckit, 2016).

As with an overdose of any drug substance, regardless of whether there is a typical toxic reaction to opioids or an allergic reaction, treatment should focus primarily on maintaining the basic physiological parameters until the body itself performs the necessary agent detoxification. It may be necessary to carry out breathing under positive pressure with the use of an oxygen respirator (most often it is necessary for an overdose of drugs that proceeds according to the type of allergic reaction), in the intravenous administration of fluids, often in combination with some pressor agents to maintain blood pressure, in gastric lavage to remove the residues of the opioid preparation. If the victim is in prostration, then an endotracheal probe with a special cuff device can be intubated to avoid aspiration of gastric contents into the respiratory tract. In case of an overdose of codeine, propoxyphene, or meperidine, cardiac arrhythmias and/or convulsive seizures often occur, which also need to be remembered.

Abuse of opiates in the presence of indications for their use: The risk of abuse of analgesics in patients of two groups is especially high. First of all, they are patients with chronic pain syndrome (for example, pain in the back, joints, and muscles), which can sometimes abuse anesthetics prescribed by doctors (Deyo et al., 2015). If a patient already has a dependence on this drug, stopping his intake can cause an abstinence syndrome, in which the pains tend to increase, which is the reason for the further use of this analgesic. Therefore, doctors are advised to observe the following precautions when prescribing pain medications in such cases (especially those who are addicted to opioid abuse): 1) an anesthetic is prescribed to reduce the disabling effect of pain, while the patient should understand that it is absolutely necessary to get rid of pain with the drug is still not possible; 2) it is necessary to involve the patient as much as possible in the active process of struggle for the improvement of his condition; 3) in the treatment of such patients opioid analgesics should be only one of the components in the rehabilitation of the patient, and in such cases, it is usually necessary to

prescribe far from the strongest analgesics, but only those that must relieve very severe pain (the “top of pain”), for example, propoxyphene (Lucas, 2012; Parker, 2012).

All such drugs should be prescribed to the patient by one doctor; 4) it is advisable to apply auto-training and some other behavioral techniques aimed at muscle relaxation and meditation; At the same time, the patient should be offered to perform a complex of carefully thought-out motor exercises aimed at expanding his functional capabilities and reducing pain; 5) if possible, it is recommended to use non-drug treatment, such as percutaneous electrical neurostimulation for muscles and joints. The second group of people at high risk of abuse of opiates is the medical workers themselves (doctors, nurses, and pharmacy workers). In this case, this is primarily due to easy access to these drugs. So, doctors can start taking opioids due to insomnia, reduce some kind of stress, or, finally, simply because of physical pain. Identifying such a drug abused by a doctor will help to study a family’s pharmacological anamnesis. Due to the fact that this problem has been widely publicized, many hospitals and medical societies of individual states have already developed appropriate programs for the rehabilitation of medical workers – drug addicts. These programs help identify these individuals and provide them with both support and training aimed at achieving the state of withdrawal without waiting for the time when these activities are already overdue and the drug addiction of the patient – is irreversible. In any case, doctors are advised never to prescribe drugs to themselves or their family members: doctors themselves, like their patients, need protection from imminent problems related to drug use in the future.

Street addicts: The usual street addiction begins with the occasional use of the drug, often after the experience of ordinary smoking, the use of alcohol, and smoking marijuana in conjunction with the reception of cerebral stimulants or depressants. Accidental use of the opiate drug on the principle of “give a try the rest” (“chipping”) can go on to their constant application at first in small quantities, then in ever larger ones. Sometimes people use drugs temporarily or from time to time, as was the case with American soldiers in Vietnam. Most of them had not previously taken opiate drugs or used them very limited, but, being in a situation of constant stress and with easy access to such a drug, they became addicted to it. Almost 50% of the soldiers used drugs, and although many of them became drug addicts, those who did not abuse opium drugs before the war more often abandoned this habit by returning home (in the US) to their familiar surroundings.

If the opium drug begins to be consumed constantly, the outcome of this drug addiction is usually very serious. At least 25% of drug addicts die in the first 10-20 years of active drug use. The cause of death, in this case, is usually suicide, murder, accident, and infectious diseases, such as tuberculosis or infectious hepatitis. About 50% of men and 25% of female drug addicts begin to abuse alcohol in the absence of a drug, that is, they become secondary alcoholics. Adherence to alcohol is higher in people who skimp on treatment, compared with those on treatment. It is also higher in people who have abused alcohol before. How addicted to drugs.

The physical dependence on the drug and opiate withdrawal syndrome: Symptoms that arise when the opium drug is withdrawn. The time of appearance of the initial symptoms of withdrawal syndrome

and its duration in acute cases depends on many factors – the half-life of the drug, its dose, and the duration of its use. Symptoms of withdrawal syndrome are in some way opposite to those that occur with a single-use (“acute”) drug use and include nausea, diarrhea, cough, tear, rhinorrhea, profuse sweat, muscle twitching, goose-skin phenomenon with a pilomotor reflex, body temperature, rapid breathing; there is also a moderate increase in blood pressure. In addition, patients complain of a feeling of diffuse pain in the body, insomnia, yawning, and a passionate desire to get a drug. In cases of withdrawal syndrome after discontinuation of short-acting opiates such as morphine and heroin, the first symptoms appear within 8-16 hours after the last dose of the drug (so many addicts usually wake up in the morning in a state of mild withdrawal syndrome). The peak of the development of withdrawal syndrome occurs in the period from 36 to 72 hours after discontinuation of the opium drug. The whole complex of symptoms of an acute opioid withdrawal syndrome usually occurs after 5-8 days. However, the symptoms of a protracted (prolonged) phase of withdrawal syndrome – some changes in pupil size, autonomic nervous system disorders, and sleep disorders – can last for 6 months or more.

Treatment of patients with opioid withdrawal syndrome: Each patient needs a thorough physical examination, which also includes an examination of liver function and neurological status. It is important to exclude the presence of focal or generalized infection, especially abscesses. From the very beginning of treatment, the patient needs to ensure rational nutrition and rest.

For effective treatment of withdrawal syndrome, it is necessary to appoint an appropriate opiate preparation, at least for one day, which the patient stopped taking. This will help reduce the severity of the symptoms of the syndrome; then the drug is gradually canceled within 5-10 days. To this end, almost any opium can be used, since they all have a so-called cross-tolerance, but because of the ease of use, most doctors prefer to use long-acting opiate methadone. The dose of the opium preparation required for the patient on the first day of treatment is determined on the basis of the patient’s medical history (how large was the dose of the opium usually used by him); it should be remembered that 1 mg of methadone is equivalent to 3 mg of morphine, 1 mg of heroin and 20 mg of meperidine. Most patients need at the same time from 10 to 25 mg of methadone orally 2 times a day. However, if necessary, these doses may be increased. After several days of a stable dose of opium, the dose is reduced daily by 10-20% of the initial dosage.

In many states, the ability of a doctor to prescribe opiates to drug addicts for medical purposes is limited by law, and if there is no special authorization, detoxification with withdrawal syndrome is usually limited to a period of 1 month or less. From neuropathic drugs in the treatment of patients with opiate withdrawal syndrome with the use of clonidine is used – a remedy that reduces the hyperactivity of the sympathetic nervous system. At doses of 5 mcg/kg (maximum to 0.3 mg 2-4 times a day), it causes a decrease in manifestations of dysfunction from the autonomic nervous system in most such patients. However, opiates for this purpose are still more effective, since they relieve the patients of a feeling of general discomfort and pain in the body, and clonidine is often badly tolerated because of a pronounced sedative effect and the ability to cause orthostatic hypotension. Therefore, it is opiates that remain the drug of choice in the treatment of patients with

opiate withdrawal syndrome.

A special form of this syndrome is observed in newborns who become passive drug addicts due to the fact that their mothers abused drugs during pregnancy. This or that degree of drug addiction develops in 50-90% of children born from mothers who use narcotics using heroin. Opium withdrawal syndrome causes the death of 3 to 30% of newborns if they are not provided with timely assistance. Clinically expressed opiate withdrawal syndrome also develops in 25% of children born to mothers who abuse methadone during pregnancy. Such children are distinguished by increased excitability, constantly screaming, being in a state of tremor (80%), reflexes increased, breathing increased, suffering from diarrhea, motor hyperactivity (60%), vomiting (40%), sneezing, yawning, hiccuping (30%). The body weight of such children at birth is below normal. Symptoms of withdrawal symptoms appear in them already on the second day of life. The principles of treatment for these children are the same as those for adults. First of all, they need to be examined and exclude hypoglycemia, hypocalcemia, infections, and trauma. Children need to ensure peace and proper care, especially when carefully monitoring the temperature of the surrounding air, in order to prevent the child from subcooling. It is also necessary to constantly monitor the content of electrolytes and glucose in the blood. If the child suffers from methadone withdrawal, then as a medical measure, the mother can be fed a baby by breast, provided she continues to use methadone.

Rehabilitation of opiate addicts. Despite some demographic differences, the general rules of rehabilitation are the same for opiate addicts and alcoholism. The foundations of the strategy for this rehabilitation include the initiation of detoxification and support for the entire family of the patient. It is also necessary to understand the general goals and the program for a particular patient, conduct conversations with him, and train him on getting out of the state of drug addiction. It is necessary to convince the patient to such an extent that he himself was striving for abstinence. For a long time, it is necessary to help the patient build a new lifestyle, already without drugs; without these efforts, it is difficult to avoid the relapse of drug addiction (Badiani et al., 2011).

Identifying addicts and the method of a psychological approach to them. Naturally, the first step in the treatment of patients with opiate addiction is the diagnosis. This is a difficult problem for street drug addicts in the middle class, patients receiving pain medication for certain medical conditions or for drug addicts, and iatrogenic drug addicts. It is important, first of all, to carefully collect an anamnesis that helps establish the nature of drug abuse or detect manifestations of antisocial behavior, as well as to identify the patient's chronic pain. In persons suspected of using opiate drugs, it is important to examine the content of opiates in urine and blood and, when examining the patient – to look for certain stigmata characteristic of drug addicts, for example, traces from injections. One effective and important diagnostic procedure (it, however, should be used with caution, since you can sharply aggravate the patient's condition) is the use of opiate antagonists. The patient is injected subcutaneously or very slowly intravenously (for 5 min or more) with 0.4 mg of naloxone, followed by observation for several hours, revealing signs of opiate withdrawal. This provoking diagnostic test should be performed only in the presence of a physician, and it is always necessary to be ready to begin appropriate therapy with the development of symptoms of withdrawal syndrome. After the

diagnosis of opiate addiction is established, the treatment of the patient is. In this case, the doctor should always be ready to help the patient not only cope with the disease but also to lay a new track of life – without a drug. The final decision on this issue (whether to live with or without a drug) depends on the patient (Yan et al., 2014).

Rehabilitation. Many rehabilitation programs have common points. Patients need to be persuaded that the quality of their future life depends on themselves, they should strive to achieve abstinence and should be sufficiently informed about what medical and psychological problems they expect in the case of continued drug addiction. Patients (and their families) need to help restore life without opiate drugs, the ballroom should be taught to cope with chronic pain. It should, in real terms, think about the professional arrangement of the ballroom – this applies, in particular, to the employees of pharmacies, doctors, and nurses. The patient should be recommended to join the society of people who abandoned drugs and also take part in mutual aid societies, such as “Anonymous Drug Abuse.” Often, doctors prefer to send these patients to special institutions where the fight against drug abuse is carried out on certain programs using opiate antagonists or maintenance therapy with methadone or other means. Long-term follow-up of drug addicts shows that about 30% of them live without drug use for at least a year at the time of the survey and 60% are accustomed to dispensing opiates, although some of these patients still use other narcotic drugs. Individuals who remain on methadone maintenance therapy or who are associated with various drug treatment societies note a marked reduction in stress in social and professional terms and an increase in professional performance. In general, the rehabilitation forecast is more favorable for those who are officially working, who have the best education, and who continue this or that curative program for at least 2 months.

Supportive therapy with methadone. During treatment with methadone and methodical acetate, the doctor must constantly advise the patient and inform him of the problem of this treatment. It is important for the patient to know that such treatment with maintenance doses of these drugs does not at all set the goal of “healing” the ballroom from drug addiction: it simply provides supportive therapy with legally available drugs. Such treatment should help the ballroom, which cannot be completely cured of addiction. Supportive therapy with these drugs helps the ballroom not to “fall out” of life, from the family, from work, to solve their social problems, and, finally, simply improves the health of the patient. Methadone is a long-acting opiate that has almost all the “physiological” properties of heroin. A drug addict who has undergone a thorough screening test to exclude previous psychiatric illnesses may receive small maintenance doses of methadone, for example, 30-40 mg per day. Large doses (100-120 mg per day) can be used, which very effectively block the euphoria caused by heroin. Although the results of such treatment are not very definite, there are facts that such doses can slow down the treatment of drug addiction in general and, accordingly, reduce the chance of termination and increase the risk of relapse of street addiction. Methadone is given orally in the solution once a day in the center where the treatment program is performed; the patient gets a dose of “weekend” for the house. Long-acting methadone analogs, for example, metal-acetate, are used at lower doses (20-30 mg) 2-3 times a week; if necessary, increase the dose to a maximum of 80 mg 3 times a week. After a period of maintenance therapy (usually 6 months to 1 year or more), the physician should try to reduce this maintenance dose by about 5% per week. In England,

maintenance therapy for heroin addiction is carried out principally in the same manner as the methadone maintenance treatment described above. There is no evidence that heroin maintenance therapy has any advantages over methadone, however, when treating heroin, there is a risk of acquiring the drug “on the street (Koob & Volkow, 2010).”

Opiate antagonists. Opiate antagonists (for example, naloxone) are competitors of heroin and other opiates against opioid receptors, thereby reducing the effect of opiate agonists. Used for a long time to block the “buzz” received by a drug addict in the use of opiates, these drugs can be quite useful as a component of a broad drug treatment program, which also includes periodic meetings with a doctor and helping a patient to develop a life without drugs. Cyclazocine was the first opioid antagonist to be used for this purpose, but it does not completely block opiate receptors, and because of its side effects it is hardly suitable. These side effects include, in particular, a sense of intoxication (Trevino et al., 2013).

Naloxone is a wonderful narcotic antagonist, it has no agonistic properties, but its effect is extremely short (2-3 hours), so it can hardly be used for rehabilitation purposes. For these purposes, another antagonist of opiates, naltrexone, which lasts for almost 24 hours and which also has fewer side effects, is more suitable. Naltrexone at a dose of 50 mg per day is able to block 15 mg of heroin within 24 hours, and in higher doses (125-150 mg) blocks the effect of 25 mg of intravenous heroin, almost for 3 days Naltrexone does not have agonistic properties, withdrawal syndrome with respect to this drug is unknown, and the side effects are very small. They begin treatment with this drug, they should not receive opiates for at least five days, they should also be carefully examined, and a short-acting opioid antagonist should be tested with naloxone (0.4-0.8 mg). In order to ensure that the patient can be well tolerated and a long-acting opiate antagonist. After this, the patient may be given a test dose of naltrexone of 10 mg, with some symptoms of opiate withdrawal that can appear in the patient after two hours.

Programs for the treatment of drug addiction without medicines. Most of the existing centers for the cure of morphinists (opiate addicts) use the group method of treatment. This is, in some ways, an exception in light of the general preference for short-term rehabilitation courses in hospitals. The fact is that such patients should be monitored for almost a year in order to remove them from the conditions of “street culture” and direct them to a new life path with the help of this group of people.

Drug overdoses can be prevented with a new vaccine

Opioids have become one of the most deadly medicines in the United States. Now researchers have developed a vaccine that can reduce the risk of fatal overdoses of opioids. In the scientific journal ACS Chemical Biology, scientists describe how the vaccine reduces the toxic effects of two opioids, oxycodone, and hydrocodone, in mice. Opioid preparations are used to treat chronic pain. They are one of the most commonly used painkillers. Although opioids are considered effective for the

treatment of pain, their use has become a serious public health problem. The drugs are highly addictive and block the perception of pain, they also affect the areas of the brain associated with the reward, which causes a sense of euphoria (Dowell et al., 2016).

Researchers believe that their vaccine will help reduce the toxicity of opioids. The new vaccine is called “hydroxy/hydro vaccine.” In fact, the vaccine uses the ability of the immune system to detect and neutralize foreign bodies. After the injection, it causes an immune response, and the immune system begins to bind the opioid molecules and withdraw them from the bloodstream.

Scientists tested the vaccine in mice given oxycodone or hydrocodone – two commonly prescribed opioids. The researchers found that the vaccine blocked the painful inhibitory effects of opioids, such as ignoring the pain. In addition, the vaccine reduces the susceptibility of rodents to fatal overdose by reducing the toxic effects of opioids. Palliative care is a remedy that alleviates pain without curing it. At the same time, the goal is not to heal the patient or prolong his life. Palliative care is aimed at preventing or alleviating pain and other physical and psychological problems. Palliative care is designed to help a person as fully as possible live until the last day, but not to postpone this day. The World Health Organization (WHO) recognizes palliative care as an integral part of the curative process, which must be accessible to all who need it. Traditionally, this is associated primarily with oncology, but in fact, such assistance may need a much wider range of patients, including those with severe neurological disorders, heart, liver, or kidney disease, as well as with incurable trauma or persistent disability.

One of the key components of palliative care is pain relief. Studies consistently show that with progressive oncology, moderate or severe pain is observed in 60 to 90% of cases. likelihood of pain and its severity increase with the development of the disease: according to experts, in the advanced stages of cancer the probability of serious pain symptoms reaches 80%. The problem of pain is also relevant for a significant proportion of AIDS patients. With the advent of ARV, the main focus of the professional community in this area was explainable focused on the treatment itself, while a common misconception was formed that the need for palliative care had disappeared. In fact, as various studies have shown, a significant proportion of patients receiving ARV continue to suffer from pain, and supplementation with palliative care helps improve their condition.

Moderate or severe pain seriously affects the quality of life. Chronic pains cause a number of psychosomatic and social consequences, including resulting in reduced mobility and impotence, immune system disorders, loss of appetite, attention deficit, sleep, and loss of ability to communicate with others. Existing medical knowledge and techniques allow, at a minimum, to significantly reduce the pain syndrome in oncology.” It is administered by injection, orally, intravenously, or by injection into the spinal cord. Typically, injections are prescribed to relieve acute pain, usually in a hospital setting. Morphine is classified as a controlled drug, so its production, distribution, and delivery are tightly controlled both internationally and nationally.

The importance of opioid analgesics has long been recognized in the medical environment. The Single

Convention on Narcotic Drugs of 1961 explicitly states that “the use of narcotic drugs in medicine continues to be necessary to alleviate pain and suffering and that appropriate measures must be taken to meet the requirements for narcotic drugs for such purposes.” Both morphine and codeine (a weak opioid) are included by the WHO in the Model List of Essential Medicines. Despite this, treatment for moderate or severe pain remains inaccessible or limited to about 80% of the world’s population, and tens of millions of people worldwide remain untreated each year, including about 5.5 million oncologists and 1 million AIDS patients in the terminal stage.

Palliative care is not only limited to the removal of physical pain and can include assistance in other physical manifestations, and psychological and spiritual support for both the patient and his family. Often a person develops anxiety and depression. Practice shows that palliative intervention in the form of, for example, psychosocial therapy, can significantly reduce the likelihood. Incurable diseases are also often accompanied by symptoms such as nausea and asphyxiation, which significantly affect the quality of life, and palliative care can play a role here (Evensen et al., 2016).

WHO strongly recommends the availability of palliative care services, including in countries with limited resources. At the same time, it is proposed to focus on the development of such services at the communal level – in medical institutions where there are a large number of patients who need such assistance, or at home, where palliative care can be provided with minimal costs and maximum coverage of people, for one reason or another able to apply to health facilities.

Methodology

The methodology for this research is structured based on interviews and case analysis applied to attempt this study. Under this methodology, a theoretical analysis of the body of principles and methods was conducted. Particularly those associated with that specific branch of study. It is more concerned with favoring the decision-making about the set of research methods, which was used in a specific case of conducting research on the appropriate use of opiates to control pain-avoiding addiction facilitation. A methodology can be conducted using two approaches: 1) a qualitative approach and 2) a qualitative approach. This research is based on qualitative methods under which the study shows more arithmetic and computational approach. After performing experiments on the subject, rigorous observations are made until a satisfactory conclusion is reached. Examples of such types of qualitative study methodology are inferential, simulation, and experimental.

The qualitative study type is the broad method of study employed in many different fields of research. Different fields and disciplines may have different aims for qualitative study. The qualitative study answers all the why, what, who, and when of decision-making. The most popular disciplines employing qualitative study are social sciences, education, and political sciences. A qualitative study is somewhat specific and provides information on particular cases studied, and informed assertions are considered in other general conclusions. One of the most widely used and important methods of qualitative study is the case study. The study has a qualitative methodology, through the application

of interviews and case studies, that addressed the use of opiates to control pain but not to facilitate addiction.

This report is based on research materials conducted from online medical databases PubMed, NCBI, Medscape, and Proquest. The questions for the interview were structured and covered various aspects of palliative care and pain management in the secondary sources. At the beginning of each interview, we explained to the interlocutor his goal, indicated the range of issues, and became convinced of his agreement. The interlocutor was informed that he could interrupt the interview at any time or refuse to answer a particular question without any consequences. No encouragement was offered or provided to the interlocutor. In the interests of confidentiality, the names of patients, their relatives, and health workers were not disclosed, unless they themselves explicitly asked for their names.

Results

In dozens of interviews with patients and their relatives, doctors, nurses, and government officials, a picture of the health system emerged that the system does not satisfy the need for acute pain management, as existing capabilities are often inaccessible, and modern methods with proven effectiveness are ignored, and the current drug regulation is focused on prevention of illegal trafficking and does not allow doctors to take advantage of the experience of evidence-based medicine. Those health workers who seek to make the most of existing opportunities are often forced to “balance on the brink of the law.” They, in violation of the order, allow patients to take home a certain supply of strong analgesics for self-administration or leave them on a daily dose. Trying to help people, they take the risk of administrative or criminal sanctions.

Particularly depressing is the situation in rural areas where strong opioid analgesics, if any, are often almost inaccessible, while approximately one-third of the U.S.’s 46 million people live there. Medical workers in the village told us that only central hospitals have a license to store and issue controlled drugs, and obtaining such a license for most low-level medical institutions is too expensive and expensive. As a result, residents often find themselves at a considerable distance from the place where they can be provided with strong painkillers.

The problem of distances would not be so acute if the health workers had the right to issue a week or two-week supply of opioids to the hands of patients or their relatives. However, in accordance with the current order, potent opioid injections should be administered directly by the providers, although this is not necessary from a medical point of view. Since oral morphine in the U.S. is absent in principle, the average medical staff is forced to visit the patient several times at home to take an injection. But if you follow the recommendations on the introduction of morphine every four hours, then a six-fold visit to the patient becomes an exorbitant burden for health workers. As a nurse in one of the districts noted, “The sick that live in the outback are doomed.”

In large cities, there is another problem: here medical institutions usually have a license to work with

strong opioid analgesics, but the treatment of pain itself cannot be considered satisfactory in a situation where it is provided inadequate and inconsistently, without taking into account the basic principles of the World Health Organization.

There are no reasonable reasons that could prevent the U.S. from providing people with chronic or incurable diseases with a decent level of palliative care and pain management. Despite the lack of resources, the country has a health system that can implement effective treatment methods in many other areas.

Principle 1: Drugs should be taken orally if possible. If this is not possible, rectal suppositories or subcutaneous injections should be used. In the U.S, oral morphine is absent in principle, strong opioids are prescribed only in the injectable form. However, contrary to the recommendation for subcutaneous injection, injections are done intramuscularly. This leads to multiple traumatic effects that are uncomfortable for the patient and are fraught with a risk of infection. So, for three years, while he was pricked with strong analgesics, Martin received thousands of injections, and the mother compared his buttocks with a “minefield.”

Principle 2: To achieve ongoing relief, pain medication should be administered to the patient every four hours. Contrary to this recommendation, most American patients receive strong analgesics only once or twice a day. Since the effect of morphine lasts from four to six hours, the remaining significant time of the day patients are without sufficient help. The appointment in the intervals of weaker analgesics and other drugs does not provide effective relief, besides, patients are at risk of unnecessary side effects. The information collected by us indicates that, in many respects, this practice is conditioned by the current order in the U.S., according to which the health workers are obliged to personally inject the patient with potent opioids in an injectable form. We were told that various medical institutions could not provide a nurse at home six times a day.

Principle 3: The choice of an anesthetic (a commonly available analgesic, a weak opioid, or a strong opioid) is determined depending on the severity of the pain. If the effect of the drug weakens, you should move to a stronger one. According to experts, the need for morphine is present in about 80% of cancer patients in the terminal stage, on average, over the last 90 days. At the same time, the data collected by us in American medical institutions indicate that many patients receive strong opioids later or do not receive them at all. In six hospitals and one polyclinic department of the city hospital, for which we have data, strong opioids received, at best, about one-third of patients with cancer in the terminal stage (usually much less), and often significantly less than 90 days.

Principle 4: Dosage is determined individually. The maximum dose for strong opioid analgesics does not exist. Contrary to the direct recommendation of the inadmissibility of limiting the daily dose of morphine, the Ministry of Health of the U.S. and the pharmaceutical company Health of the People, the only national manufacturer of morphine, recommend 50 mg in injectable form. This dose is much lower than what is safely and effectively used to relieve pain in other countries. We have established that many, though not all, American doctors do not exceed the recommended daily dose even in

cases when it is insufficient.

Principle 5: The pain management schedule should be comfortable for the patient. As nurses have to come to the house personally to administer morphine injections, the patient's schedule for receiving the drug is determined not by his needs but by the capabilities of the health worker. As a result, the patient may agonize in anticipation of a sister's arrival or receive an injection at a time when he does not have anything to hurt.

In the course of our research, we dealt mainly with the situation of cancer patients but also documented a number of cases of acute pain in diseases or conditions of a non-oncological nature. We have established that for such patients, obtaining qualitative pain treatment is even more problematic. Physicians-therapists and other specialists, as a rule, do not possess the appropriate level of knowledge and often are afraid to prescribe strong opioids in the absence of cancer. As several patients told us, the doctors ignored their complaints of pain or persuaded them that she would leave after the cause was eliminated (Tanabe et al., 2007).

Discussion/Recommendation

Reverse the order in which morphine and other strong analgesics in the injectable form are administered to the patient at home directly by the health worker. In collaboration with physicians and other specialized experts, develop a new procedure for delivering drugs to the hands in order to ensure that the patient always has painkillers. For example, in areas where the provision of patients has been established within the current order, medical facilities could be allowed to hand out at least a week's supply, and in rural areas with limited availability of licensed health facilities – at least two weeks.

To change the order of licensing of rural medical institutions. Requirements for obtaining a license must be feasible for all rural health facilities, including FAPs. In particular, in relation to such institutions, the government should consider whether it is advisable to require a separate storage facility for controlled drugs: perhaps a certain safe class will be sufficient for this. The government should ensure that rural medical institutions receive a license in the presence of a simple light and sound alarm, without output to the police control panel. If based on the results of the analysis, requirements requiring significant expenditures are still preserved, the state should provide appropriate budgetary financing to cover these costs.

Ensure the availability of guidelines for pain management in all health facilities. The Ministry of Health should require doctors to follow the recommendations on the assessment and treatment of pain based on correct pharmacological approaches. Provide postgraduate training in pain management techniques for physicians at all levels of the public health system.

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