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Rehabilitation of Patients from Chronic Alcoholism after Alcohol Intoxication

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The social and economic burden caused by alcohol consumption is increasing in all countries. The World Health Organization (WHO) estimates that 3 million deaths occur annually worldwide as a result of the harmful use of alcohol, accounting for 5.3% of all deaths [1, 18]. Research suggests regional, national and local variations in drinking patterns and social contexts, but overall negative health consequences are clear [18].

According to the International Classification of Diseases and Related Health Problems, 10th Revision (ICD-10), alcohol dependence syndrome is a chronic, relapsing disease, and there are currently no highly effective treatments for it. Before addiction occurs, there is always a period of problematic alcohol use [5]. The duration of this period varies individually and depends on many factors (frequency of alcohol consumption, amount of alcohol consumed, hereditary factors, concomitant diseases, etc.), but usually lasts several years. Effective intervention at the stage of problematic alcohol use can slow down or prevent the formation of the disease [15].

Alcohol addiction has a wide range of social consequences, affecting both the drinker himself and his close circle, and society as a whole. From a social point of view, this is a form of behavior characterized by a person's pathological attraction to alcohol and subsequent personality degradation. Social manifestations of alcoholism are expressed in changes in social circles, in society's rejection of alcohol-dependent individuals, in their stigmatization [15]. Most alcohol abusers are socially isolated, lose social skills, the world around them is perceived as hostile, they lose friends and trust in people. In addition, alcohol addiction disrupts family relationships. The formation of dependence syndrome in one of the spouses causes irreparable harm to family relationships. According to studies by Russian authors, 70% of women whose partners suffer from alcoholism have a pronounced neurotic state [8].

One of the social consequences of alcoholism is various offenses. Experts note that problematic use of alcoholic beverages and intoxication contribute to the commission of the most serious offenses. It has also been established that there are no fundamental differences in the frequency of offenses between those prone to domestic drunkenness and those suffering from alcohol dependence [8]. Both individuals are asocial and have a tendency to commit crimes [6, 8].

Thus, the social damage from excessive alcohol consumption is enormous: it is caused by industrial and transport injuries, increased crime, and causes fires. Alcohol addiction is the most common cause of family breakdown, an increase in the number of dysfunctional families, the number of orphans and children with special needs of mental and physical development, the formation of dependence syndrome and suicidal behavior [5].

The dynamics of substance use disorders in Uzbekistan is characterized by an increase in alcohol dependence with a relative decrease in drug abuse. Thus, in the period from 2008 to 2022, the incidence of drug addiction decreased from 8.2 cases per 100,000 population to 2.9 cases, respectively. At the same time, the incidence of alcohol dependence increased from 13.0 to 24.3, respectively [1].

A big problem is that in Uzbekistan, patients suffering from alcoholism extremely rarely go to drug treatment hospitals and dispensaries, since in a Muslim country this disease is considered shameful, and there is also a prevailing fear of registration with a drug treatment center, which is fraught with loss of social status and work. This circumstance, as well as the lack of an emergency 24-hour narcological service, leads to the fact that people suffering from alcoholism abuse alcohol until they

develop life-threatening complications, eventually ending up in the toxicology departments of the Russian Research Center for Emergency Medicine and its branches [1].

Patients with alcohol intoxication make up from 39.8 to 54.9% of all victims admitted to toxicology departments, firmly occupying first place in the structure of hospitalization in these departments. Emergency care (ED) for acute alcohol poisoning according to clinical diagnostic standards mainly includes infusion and detoxification therapy, vitamin therapy, respiratory support in the event of the development of deep coma or aspiration syndrome. However, already at the stage of the toxicogenic phase of poisoning, the toxicologist is faced with the need for a differentiated approach to the diagnosis and intensive treatment of alcohol intoxication resulting from a single abuse and as a result of long-term previous alcoholism [1].

In fact, we are dealing with two different diseases, despite a single etiological factor - the consumption of ethanol products. This is due to the peculiarity of the effects of ethanol on the body during long-term abuse [1, 2, 7, 25].

Numerous studies have shown that in this situation, in addition to the direct effect of alcohol metabolites, there is an indirect effect - in the form of hypercatecholaminemia, hyperammonemia, which is manifested by excitation of the central and autonomic nervous system, that is, alcoholic encephalopathy [1, 2, 3]. At the same time, the insidiousness of ethyl alcohol lies in the fact that its next dose, increasing the concentration of excitatory neurotransmitters, simultaneously blocks their interaction with receptors and temporarily makes the patient feel better. Therefore, in the intensive care tactics for these patients there are a number of features, non-compliance with which leads to a sharp deterioration in the patient's condition due to the development of severe post-intoxication syndrome, including alcoholic delirium [1, 2, 3].

First of all, patients admitted with alcohol intoxication due to chronic abuse require sedation. Benzodiazepines and antipsychotics are commonly used. Only against the background of medicated sleep will infusion therapy have a positive effect. Secondly, the introduction of large doses of B vitamins, especially B1, B6, helps normalize the level of GABA and thereby reduce psychomotor agitation. Thirdly, this is the treatment of toxic hepatitis, since without restoring the detoxification function of the liver, the level of free ammonia and lactate will remain high, prolonging alcoholic encephalopathy (AE) [1, 4]. Therefore, since 2019, in the Department of Toxicology of the Russian Research Center for Emergency Medicine, hepatoprotectors with ammonia-binding and antihypoxic properties have been actively used in complex intensive therapy of AE [1, 3, 4].

Full treatment of alcohol intoxication and rehabilitation of patients who chronically abuse alcohol takes at least 14-20 days. However, the tasks of the emergency medicine system, including the toxicology service, do not include the complete recovery of such patients, but only the stabilization of their condition. In this connection, according to statistics, the average time of their stay in the toxicology departments of the Russian Research Center for Emergency Medicine and its branches is 3.2±1.3 bed days, which is clearly not enough for adequate restoration of cognitive functions [1].

Thus, although the emergency care system in Uzbekistan provides effective pharmacological treatment for detoxification of such patients, follow-up and linkage to alcohol treatment services is inadequate. This is the reason why very few patients seek treatment for their addiction after discharge from acute care hospitals [1]. As a result, patients admitted for acute alcohol intoxication may be readmitted for the same diagnosis in short order, increasing health care costs and risks of injury, violence, and crime. Despite solid international experience and strong connections with patients' family members as a means of social support, there is a lack of psychosocial support in the emergency department.

The project "Social work and support of NGOs in cooperation for the development of drug addiction treatment (SOLID), which is the result of cooperation between universities in Germany, Kazakhstan, Kyrgyzstan, Tajikistan, China and Uzbekistan and is supported by the German government, helps to correct this situation. Project SOLID is a doctoral study aimed at achieving positive outcomes for the UN's health and well-being focus by developing a psychosocial support system in acute care hospitals

with the involvement of family members of people with substance use disorders. The study is conducted within the framework of the priority research area of the SOLID projects "Social work and drug addiction treatment" [11, 16].

In most developed countries, standard treatment for alcohol use disorder consists of detoxification therapy and antidote therapy. And after removal from the state of intoxication, psychosocial therapy is added, such as cognitive behavioral therapy (CBT), motivational interviewing, motivational enhancement therapy, and the creation of self-help groups [13, 21, 30, 34, 38]. These types of combination therapy have shown excellent results and must be introduced in our country [12, 13, 30]. Currently, in Uzbekistan, although drug therapy is used quite effectively, the lack of psychosocial and motivational interventions leads to repeated visits to emergency departments for patients with alcohol use disorder [13, 14]. With a one-dimensional approach to treatment, although the problem is temporarily addressed, the underlying underlying cause remains and alcohol consumption levels steadily increase. Psychological, socio-economic factors play a big role in chronic alcoholism, so treatment with drugs only solves the symptom, but not the cause. Therefore, we must implement comprehensive treatment programs that include both medication and psychotherapy to reduce alcohol consumption in Uzbekistan and thereby reduce co-occurring alcohol abuse.

To identify patients suffering from alcoholism and alcohol use disorders, the World Health Organization has been using the so-called AUDIT test (The alcohol use disorders identification test) for many years, which is the most widely tested screening tool in primary health care [13, 28, 39]. Moreover, the test allows not only to identify patients suffering from chronic alcoholism, but also those who have approached this dangerous line.

It also provides a basis for intervention. in the form of health education, counseling or referral to help potential drinkers stop or reduce their alcohol consumption and thereby avoid or minimize the harmful effects of alcohol use [26, 28, 40, 41]

The AUDIT test consists of 10 questions covering various aspects of alcohol use and related problems. The maximum possible score is 40.

The test results are interpreted as follows: less than 8 points – no problems with alcohol consumption; 8 – 15 points: problematic or risky alcohol consumption; 16 – 19 points: alcohol abuse and alcohol use with harmful consequences; more than 20 points – possible alcohol dependence (Table 1).

Table 1. Basic questions of the AUDIT test

Points Questions	**0**	**1**	**2**	**3**	**4**
How often do you drink alcoholic beverages?	Never	Once a month or less	2-4 times a month	2-3 times a week	4 or more times a week
What is your usual dose of alcoholic drinks on a drinking day?	1-2 st. Doses	3-4 tbsp. doses	5-6 tbsp. doses	7-8 tbsp. doses	10 or more tbsp. doses
How often do you drink more than 5 (for men) or 4 (for women) standard drinks during one drinking session?	Never	Once a month or less	1 time per month (monthly)	1 time per week (weekly)	Daily or almost daily
How often over the past year have you realized that you were unable to stop drinking?	Never	Once a month or less	1 time per month (monthly)	1 time per week (weekly)	Daily or almost daily
How often over the past year have you failed to fulfill your responsibilities or promises because of	Never	Once a month or less	1 time per month (monthly)	1 time per week (weekly)	Daily or almost daily

drinking?					
How often over the past year have you needed to drink in the morning to recover from a previous heavy drinking session (to recover from a hangover)?	Never	Once a month or less	1 time per month (monthly)	1 time per week (weekly)	Daily or almost daily
Over the past year, how often have you felt guilty and/or remorseful after drinking?	Never	Once a month or less	1 time per month (monthly)	1 time per week (weekly)	Daily or almost daily
How often during the last year have you been unable to remember what happened the day before because you were drinking?	Never	Once a month or less	1 time per month (monthly)	1 time per week (weekly)	Daily or almost daily
Has your drinking ever caused injury to you or others?	Never	This happened more than 1 year ago	Yes, this happened during this year	-	-
Have you ever had a relative, friend, doctor or other health care professional express concern about your drinking or suggest you stop drinking?	Never	This happened more than 1 year ago	Yes, this happened during this year	-	-

If, based on the screening results, the patient scored more than 8 points in the AUDIT test, then the next stage of psycho-social intervention is the so-called Short-term counseling regarding alcohol use (STAC) [10, 17, 19, 28, 37, 42].

STAC are a variety of interventions that involve a brief conversation designed to encourage individuals in a non-confrontational manner to think about their alcohol use and to plan changes to reduce their use and/or reduce their risk of harm to their health. For the most part, types of brief preventive counseling are based on two key concepts [10, 20, 21, 28]:

A) the concept of gradual change;

B) concepts of motivational interviewing

Let's consider the content of these concepts:

A) Stages of behavior change. The stages of behavior change are five sequential steps associated with specific tasks that an individual must complete in order to achieve intentional behavior change [10, 28, 37, 42].

During the precontemplation stage, a person is either unaware of the problem that needs to be addressed or is aware of it but is unwilling to change the problem behavior.

The next stage is the reflection stage, characterized by an ambiguous attitude towards problem behavior and an assessment of the advantages and disadvantages of such behavior, as well as its changes, which in many cases ends in making a decision [10, 28, 37, 42].

During the preparation stage, a person makes a conscious decision to change, accompanied by a willingness to adhere to the appropriate plan of action [10, 28, 37, 42].

This plan is implemented at the action stage, in which the individual becomes a participant in actions aimed at achieving change and overcoming emerging difficulties [10, 28, 37, 42].

If successful actions are sustainable, the person moves to the conservation stage, in which efforts are made to consolidate the changes achieved [10, 28, 37, 42].

Once these changes have become part of the lifestyle, the individual leaves the cycle of incremental change. Relapses, however, are not uncommon, and sometimes it is necessary to complete the entire cycle of changes more than once before the changes become sustainable [10, 28, 36, 37, 42].

B) The key concept is motivational interviewing. Motivational interviewing (MI) is a conversational style designed to reinforce a person's motivation and his/her readiness to change. MI is a style of two-way, goal-oriented communication in which special attention is paid to creating and strengthening the desire for change in the person seeking help. The purpose of such communication is to strengthen a person's motivation and his/her commitment to achieving specific changes by identifying and analyzing his/her own reasons for changing in an atmosphere of understanding and support [10, 28, 36, 37, 39, 42].

MI is based on four processes:

- ✓ involvement (formation of relationships, trust - attentive listening);
- ✓ focusing (achieving mutual agreement regarding the main topic of conversation);
- ✓ stimulating (active listening to stimulate discussion of change);
- ✓ planning (joint development and approval of a change plan) [10, 28, 37, 42].

The focus is on ensuring active patient participation.

A brief preventative consultation is a short, evidence-based, compassionate, well-structured conversation with the patient, the purpose of which is to motivate and encourage thinking about changing behavior in relation to alcohol use and/or planning such a change without conflict [10, 27, 28, 37, 42].

Brief preventive consultations vary in several ways

- ✓ by duration – from 5 minutes to several sessions of an hour or longer;
- ✓ by context – from advice to instruction;
- ✓ using MI or a staged change model [10, 28, 34, 35, 37, 42].

It is very important that brief preventive consultations are based on a compassionate, respectful, positive relationship with the patient and are conflict-free. The idea is to work with the consciousness and motivation of a person so as not to shock him, not to confront him and not to impose his own opinion. The goal is to collaborate and work with the person rather than trying to force the person to make changes or do something they do not want to do [10, 28, 37, 42].

Brief intervention includes 5 main stages:

1) assessment and feedback;
2) discussion and determination of goals;
3) behavior change techniques;
4) self-help manuals/guides;
5) monitoring and supporting changes [10, 28, 37, 42].

Brief interventions may be used for patients who drink hazardous or harmful amounts of alcohol. In some cases, short-term intervention can reduce alcohol consumption by more than 30%. At the same time, a reduction in alcohol consumption in patients who have undergone short-term interventions is

accompanied by an improvement in physical health and a decrease in the number of days of temporary disability due to somatic disorders [24, 29, 31].

However, alcohol abuse has a detrimental effect not only on the alcoholic himself but also on his family.[23]. The degree of negative impact varies among family members and from family to family. This often leads to serious emotional and medical problems. The negative reaction of family members to the behavior of an alcoholic usually increases the alienation and dependence of the person that has arisen as a result of alcoholism [23]. Therefore, a relatively new intervention treatment for alcoholism is the so-called Total Family Intervention (TFI), which recognizes the impact of addiction or mental illness not only on the identified patient, but on the entire family ecosystem. TFI broadly defines family as those significant others who are most visible in a person's life and relies on the agreement of all family members to participate not only in the intervention, but also in the treatment process [11, 23].

The family can closely monitor the patient because the family is closer to the patient, it is easier for them to explain his/her problem to the patient, reduce anxiety, and reduce the level of depression. If the family understands how they support, encourage and support the behavior of patients, leading to a positive psychological attitude [23, 32, 33]. We first begin treatment when the patient needs support and the family provides this by caring for the patient's needs, providing adequate nutrition, financial support and psychological comfort. When the family gradually sees improvement in the patient's behavior, they encourage him by praising him and being proud of him, the patient feels more committed and adheres to the treatment program. The family supports treatment by caring for and motivating the patient [23].

Let's consider the main stages of Total Family Intervention (TFI) [10, 23]:

A) Initial contact includes the following points:

1. Assessing the emotional state of family members of an alcohol-dependent person. When family members reach out to you, they are often desperate. They feel like they've tried everything. They are terrified for their loved one. They have a variety of emotions from love to anger, guilt, fear and hope. If they call, they still have hope that something can be done [8, 10, 23].
2. Designate an interventionist as the primary point of contact for the team and determine who will be on the team. It is vital that the key people involved in the person's life are willing to join the identified patient in the recovery process. If only a few people join the recovery process, the person with addiction may split the family and continue problematic behavior [8, 10, 23].
3. During the second contact, develop hope that the intervention can help them move in the right direction by getting them to imagine what life will be like when the person is in recovery [8, 10, 23]. Provide information about the success of interventions, as well as the success of different types of treatment. Explain the risk factors they may reduce and the protective factors they may enhance. Explain that it is necessary to support your loved one [8, 10, 23]. During the face-to-face meeting, the interventionist also gathers information about the stage of readiness for change of the identified patient, as well as each interventionist participant, to select the most appropriate tools to increase motivation and facilitate change. Also, the doctor can find out the patient's state of mind and readiness to accept the change by assessing the change in behavior [8, 10, 23].

B) Planning. During the preparation phase, it is vital to help the family see how the identified patient's behavior has affected them, as well as identify the patient physically, affectively, cognitively, environmentally, and explore how their behavior has affected the identified patient [8, 10, 23]. It is important that each of them begins to take care of their physical and mental health through proper nutrition, adequate sleep and treatment of any diseases. Relatives and the patient themselves need to learn or improve their stress management skills. Learn to cope with issues of anger, grief, guilt and anxiety associated with the patient's situation. They must allow themselves to be happy every day. The coach needs to evaluate their relationship and strengthen boundaries and communication as needed. After the intervention, it is recommended that someone (interventionist or clinician) conduct short (30-

minute) follow-up meetings [8, 10, 23]. Check with the family weekly for 12 weeks whether the patient has agreed to treatment, then subsequent measures will be aimed at adapting to all new changes. If the patient refuses treatment, follow-up should be aimed at preventing further separation and destruction of the patient's family [8, 10, 23].

Thus, short-term interventions and total family intervention are effective mechanisms for reducing alcoholism in the population, because Uzbekistan is an Islamic state and the family is of great importance, the word of parents is often absolute and children have great respect for their parents. However, these techniques are effective only for patients without cognitive deficits. At the same time, the works of domestic and foreign authors [1, 2, 4, 7, 11] have proven that the majority of patients admitted to emergency hospitals with alcohol intoxication are discharged with persistent intellectual disorders of varying severity, due to metabolic disorders, hypoxia and toxic liver damage . As a result, there is an urgent need to identify latent cognitive disorders in patients at the time of discharge from toxicology departments, which will help determine the timing of psychosocial interventions, as well as the need for additional drug support.

CONCLUSION.

Thus, because of its accessibility and ability to reach a large number of patients, emergency health care has the potential to be used to reduce the risk associated with problematic alcohol use. The most effective approach to preventing drunkenness and alcoholism is an approach aimed at gradually changing traditions in society, with an emphasis on the possibility of adjusting individual behavior under the influence of others. A full motivational interview should be conducted with patients, including their family relatives, who engage in harmful and dangerous drinking and are hesitant about changing their drinking habits. However, for patients who have suffered acute or chronic alcohol intoxication, the timing of psychosocial interventions should be determined after studying the metabolic and cognitive status of such patients.

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