

Best Treatment for Alcohol Withdrawal Syndrome

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Abstract

Alcoholism is defined as a pattern of uncontrolled drinking leading to medical, legal, and psychosocial adverse consequences. When a heavy drinker suddenly stops drinking alcohol, symptoms of Alcohol Withdrawal Syndrome (AWS) may occur. The goals of treatment are to treat the immediate withdrawal symptoms, prevent any complications, and to provide long term preventative therapy. A combination of nursing care, medications, and complementary medications are used to effectively treat AWS. There are various medications options and treatment regimens that healthcare professionals can use in the treatment of AWS, with benzodiazepines being the standard. The success of any treatment regimen relies on the individualization of therapy for each patient through the use of protocol-driven, multidisciplinary approach.

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Introduction

Alcoholism is defined as a pattern of uncontrolled drinking leading to medical, legal, and psychosocial adverse consequences. Over the years, alcoholism has become a major public health problem. When a heavy drinker suddenly stops drinking alcohol, symptoms of alcohol withdrawal may occur (Chourishi, Raichandani, Chandraker, & Chourishi, 2010). Alcohol abuse is a pattern of drinking resulting in harm to a person's health, interpersonal relationships, or ability to work (Donnelly, Kent-Wilkinson, & Rush, 2012). Although many people abuse alcohol without meeting the criteria for alcohol dependence, continued excessive alcohol consumption can lead to the development of dependence. Psychological symptoms can occur during alcohol withdrawal such as, irritability, agitation, anxiety, and sleep disturbances (Becker, 2008). The goals of treatment are to treat the immediate withdrawal symptoms, prevent any complications, and to provide long term preventative therapy (Chourishi et al., 2010). Effective treatment of Alcohol Withdrawal Syndrome (AWS) is important to Psychiatric Nursing because ineffective treatment can lead to severe withdrawal symptoms like hallucinations, seizures, and delirium tremens (DT), which is a potentially deadly condition (Elholm, Larsen, Hornnes, Zierau, & Becker, 2011). Effective treatment is also important to reduce relapse rates and keep the patient on the path to recovery. This paper will provide information about alcohol withdrawal, the benefits and harms of interventions, and the nursing care and medications that are used to care for the patients.

Alcohol Withdrawal Syndrome

AWS relates proportionally to the amount of alcoholic intake and the duration of a patient's recent drinking habit (Chourishi et al., 2010). Clinical features of AWS include

tachycardia, elevated blood pressure, diaphoresis, and tremors. Excessive activity of the central nervous system may lead to seizures and severe symptoms of AWS including hallucinations and DT (Becker, 2008). Physical signs and symptoms of withdrawal may decrease or stop after a few days, but the psychological symptoms may continue longer. Many of these signs and symptoms such as anxiety, irritability, and agitation may linger for extended periods of time. The persistence of these symptoms may be a major motivational factor that leads to relapse of heavy drinking (Becker, 2008). Excessive use of alcohol alters the neurochemical transmitter systems and makes a greater amount of dopamine available in the nucleus. This dopamine increase leads to mood elevation and euphoria, which become strong motivators to repeat the experience (Donnelly et al., 2012).

Relapse may be defined as the resumption of alcohol drinking following a prolonged period of abstinence. The vulnerability to relapse is commonly associated with an intense craving or desire to drink. The events that trigger relapse drinking fall into three categories: exposure to small amounts of alcohol, exposure to alcohol-related cues or environmental contexts, and stress. Alcohol dependence and withdrawal experiences contribute to enhanced relapse vulnerability as well as high levels of alcohol drinking once a “slip” occurs (Becker, 2008).

Treatment

Nursing

By partnering with patients, nurses can advocate for an integrative health care approach that blends knowledge of traditional healing methods with current treatment protocols, which can enhance the single-model approaches to health and wellness. Nursing care should begin in a well lit room with a calm and reassuring environment. The first encounter assessment includes

facial expression, self-care assessment, unusual odors, vital signs, height, weight, body movements, gait, balance coordination, level of consciousness, skin, hair, nails, nutritional status, facial puffiness, and flushing. Unusual bruising, abrasions, and burns should also raise suspicion of alcohol abuse (Donnelly et al., 2012).

It is important for nurses and healthcare professionals to collect an accurate history of alcohol intake. Several screening tools are used to identify patients that chronically abuse alcohol. Some of these tools are Alcohol Use Disorders Identification Test (AUDIT), CAGE questionnaire, and Clinical Institute Withdrawal Assessment for Alcohol Scale (CINA-Ar). These are self-administered questionnaires that examine alcohol intake, dependence, and adverse consequences. The higher the scores the more severe the AWS and the greater possibility that pharmacotherapy will be needed (Lemon, Winstead, & Weant, 2010).

If AWS is left untreated, it can significantly complicate the underlying disease and lead to severe clinical consequences. The presentation of these patients to the emergency department is a likely occurrence, and it is essential that healthcare professionals are familiar with their management (Lemon et al., 2010). Following the termination of alcohol consumption, the seizure threshold begins to decline leading to the risk for tonic-clonic seizure activity. The most serious complication is DT, which can lead to mortality in 15% of cases. The symptoms include hyperthermia, diaphoresis, tachypnea, tachycardia, disorientation, and visual and auditory hallucinations (Lemon et al., 2010). Since poor nutrition is common, those suffering from AWS present with electrolyte abnormalities. Hypokalemia, hypomagnesemia, and hypophosphatemia can cause seizures and arrhythmias independently if left untreated. Thiamine deficiency can lead to the most damaging consequences of alcohol abuse, Wernicke's encephalopathy. Brain lesions develop and lead to symptoms of amnesia, oculomotor

dysfunction, gait ataxia, and subacute dementia, known as Korsakoff's psychosis (Lemon et al., 2010). Nurses and healthcare professionals must be ready to assess and implement orders that will reverse these symptoms as quickly as possible.

Medications

Multiple drug classes have been utilized as either single therapy or combination therapy for the management of AWS. The goals of therapy include the safe and effective treatment of withdrawal symptoms, prevention of seizures, and prevention and treatment of DT. The ideal pharmacotherapy agent would be effective while minimizing adverse drug events, preventing addiction, and being cost-effective (Lemon et al., 2010). A short and effective management of withdrawal symptoms reduces the inconvenience for the patient and saves costs (Chourishi et al., 2010).

Benzodiazepines are considered to be first-line therapy for the treatment of seizure activity and DT. These drugs resulted in significant reduction of symptoms of AWS, including seizures, within two days. Although benzodiazepines are the most common treatment for mild to moderate AWS, they can cause motor in-coordination and can be abused (Lemon, et al., 2010). Several other medications may be useful at times. Barbituates have the benefit of having lower potential for abuse than benzodiazepines, but their efficacy has not been determined. These are only used when patients do not respond to benzodiazepine therapy. Carbamazepine has been identified as the most effective drug in the Anti-epileptic class. In one study, carbamazepine and lorazepam were compared and found both effective in preventing AWS, but carbamazepine was more effective in preventing post treatment relapses with alcohol consumption over the 12 days of follow-up. There was also less anxiety symptoms and toxic effects (Lemon, et al., 2010).

Complementary Medications

There are numerous other medications that are complimentary to the patient experiencing AWS. Beta blockers lower heart rate and limit tremors in AWS and are considered as adjuvant therapy. Haldol has also been utilized to control psychiatric symptoms of alcohol withdrawal such as combativeness, delirium, and anxiousness, but has proven to be less effective than benzodiazepines. Thus, Haldol should be reserved for the treatment of psychiatric manifestations of AWS refractory to benzodiazepine therapy. Electrocardiographic monitoring is necessary for patients receiving Haldol therapy due to its potential for causing torsade de pointes (Lemon, et al., 2010).

Chronic alcohol abuse can affect all body systems which can result in hypertension, hyperlipidemia, cardiac arrhythmias, cardiac myopathy, liver disease, peptic ulcer disease, and pancreatitis. Drinking can also cause nutritional deficiencies. Therefore, medications are needed to treat the diseased organs of the body and vitamins and minerals are needed to treat deficiencies, such as decreased thiamine, folic acid, and vitamin A (Donnelly et al., 2012).

Gaps in Evidence

The study by Riddle et al. (2010) revealed that carbamazepine did not show evidence of preventing seizures, where other studies within this paper indicated that it was effective. Haldol was not recommended in treatment in some studies due to it lowering the seizure threshold and prolonging the QT interval. The study by Martinotti et al. (2009) indicated that benzodiazepines had many negative side effects including excess sedation, memory deficits, and respiratory depression. They also have abuse and dependence liability. Some studies indicated that hallucinations and DT resulted in 5-10% of the population and another estimated that it was 20% or higher (Riddle et al., 2010). Chourishi et al. (2010) study showed that gabapentin is

equivalent in efficacy to lorazepam in the treatment of AWS, but had fewer side effects than lorazepam such as daytime sleepiness. Additional studies are needed to determine gabapentin's effectiveness as a treatment for preventing AWS or relapse to drinking after a period of abstinence (Chourishi et al., 2010).

Conclusion

Alcohol addiction and withdrawal can have serious physical and mental complications. There are various medications options and treatment regimens that healthcare professionals can use in the treatment of AWS, with benzodiazepines being the standard. To date no therapeutic intervention can fully prevent a relapse and sustain abstinence (Becker, 2008). The success of any treatment regimen relies on the individualization of therapy for each patient through the use of protocol-driven, multidisciplinary approach (Lemon et al., 2010).

From this paper, nurses can learn about the seriousness of AWS, the importance of effective treatment, and the various medications and interventions used in treatment. This information is very useful to nurses, since they are responsible for assessing patients coming into the Emergency Room. It is important that they are able to acknowledge the signs and symptoms of AWS in order to treat them quickly and efficiently to avoid the progression to dangerous and life-threatening symptoms such as hallucinations, seizures, and DT.

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