

Effective Outpatient Alcohol Detoxification on a Neuropsychanalytic Service

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Biological Sciences - Article

Keywords:

Posted Date: August 19th, 2023

DOI: <https://doi.org/10.21203/rs.3.rs-3275678/v1>

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Abstract

Consumption of alcohol causes 3 million deaths per year worldwide.¹ Detoxification is expensive in terms of personnel time and cost. Most patients do not engage in aftercare. We examined records from a neuropsychanalytic addiction medicine service to determine whether severe alcohol withdrawal can be managed outpatient. Valproic acid 2000 mg was immediately given and chlordiazepoxide, if needed, was given every hour until withdrawal was in remission. 42 patients had a total of 69 detoxifications. The prediction of alcohol withdrawal symptom severity (PAWSS) rated moderate or severe withdrawal for 86%. For 78% withdrawal remitted in 3.5 hours or less. Completion was 97%. 100% of patients had at least 4 follow up visits. Valproate and chlordiazepoxide loading by the same outpatient providers who treat after detoxification is safe, cheap, effective, and humane. The requirement that a sober support person attend the initial assessment and accompany the patient during detoxification addresses denial of the need for help and in many cases, extends recovery to the family. Having observed disulfiram administration for the first year sober stabilizes patients who otherwise might respond to craving and drinking dreams with relapse. These results indicate that outpatient alcohol detoxification may be comparable or better than inpatient treatment in facilitating abstinence from alcohol.

Main

Consumption of alcohol causes 3 million deaths per year, 5.3% of all deaths worldwide.¹ 30 million people in the United States have had alcohol use disorder in the last year.² If detoxification is needed, outpatient detoxification is preferred.³ The period required for alcohol detoxification is generally 3 – 10 days, depending on the severity of withdrawal, and whether the process is complicated by seizures or delirium tremens.⁴ If alcohol withdrawal is medically managed, benzodiazepines are generally used.⁵

Unfortunately, more than half of patients do not engage in any form of treatment after detoxification, leading to progression of the disease while wasting the resources employed during detoxification, both in terms of personnel and expense.⁶ Alcoholics Anonymous (AA) is the best treatment available.⁷

Progression of the disease is deadly. An eight year follow up of alcoholics detoxified on an inpatient hospital service found that 29% had died.⁸

Neuropsychanalysis combines the systematic observations of psychoanalysis, neuroscience,⁹ and empirical measures, in this case keeping careful track of baseline assessments and withdrawal symptoms and interventions and uses the psychoanalytic sensibility that every patient is their own experiment. There are no attempts to prescribe behaviors or outcomes, referred to as “analytic neutrality,” which makes the patient the center of initiative, and also facilitates observation of illness. With this approach a unique service has learned from patients how to optimally treat alcoholics in need of detoxification.

The first author conducted about 7000 alcohol detoxes on academic inpatient services. Psychotherapy was an important component of treatment. Papers were read and cases discussed with Harvard psychiatry residents. By gradually revising our approach, the first author learned that by loading patients

on valproic acid, 2000 mg for the first two days, and front-loading with chlordiazepoxide administered every hour according to clinical response and amelioration of vital signs, most severe alcohol withdrawal could be put in remission in three hours or less.

Moving to a neuropsychanalytic service at the State University of New York Upstate Medical University, the senior author obtained IRB approval to use deidentified patient information regarding baseline assessments and outcomes of treatment, with written informed consent. Nearly every admitted patient was asked to sign the informed consent on admission or soon after. In 2023 electronic records were mined with senior staff names and “valproic acid” or “valproate.” The resulting records were read and are reported. The prediction of alcohol withdrawal severity scale (PAWSS) was calculated based on information available in each patient’s record. The PAWSS has been shown to have high sensitivity and specificity in predicting moderate to severe withdrawal.¹⁰ Severe withdrawal is followed by the development of seizures or delirium tremens in up to 20% of hospitalized patients.¹¹

We require that a sober support person, most commonly the new patient chooses a relative, attend each intake. Initial psychiatric evaluation included a history of age at onset of drinking, when 5 or more drinks per day started, whether there had been rehabilitation treatments, withdrawal symptoms, drug dreams – regarded as evidence of never again being able to drink without becoming readdicted,¹² and AA attendance. Other addictive drug use was recorded. Benzodiazepines are regarded as an addictive drug.

A Hamilton Rating Scale for Depression (HRSD) was performed by interview. Screens included SCID2 for borderline personality, and ADHD Self Rating Screen (ASRS) for attention deficit hyperactivity disorder (ADHD). If the ASRS was positive, a DIVA interview was conducted for DSM5 diagnosis. We made a diagnosis of borderline personality if the SCID2 response included at least 7 symptoms. We appreciate that the HRSD is not valid for diagnosis until a patient in withdrawal is sober for a week.¹³ Depressive diagnoses were regarded as provisional.

Patients were asked to go to nearby University Hospital (UH) to have their blood drawn for electrolytes, complete blood count, amylase, lipase, and liver enzymes, often for blood alcohol level (BAL), and to pick up the medications for withdrawal at the hospital pharmacy. Usually, we did our initial assessment and requested that the patient continue drinking until midnight, then go to the hospital at 8 am the next day. They would arrive at our office by 9. If the patient was in withdrawal at intake, and there was time to treat the withdrawal that day, they could go to the hospital for the blood draw and medications and come back for detoxification. Occasionally the patient arrived for their intake late in the day and was given the choice of taking the medication on their own with us available by phone or going to the emergency room for possible UH admission.

Valproate 2000mg was always given. Varying doses of chlordiazepoxide were given starting immediately with 200 mg if withdrawal was severe. At the end of the detoxification the patient took either 500mg or 1000mg of disulfiram administered by the support person, who pledged to spend every minute

with the patient until they brought the patient back the next morning. The phone number of the senior clinician presiding over the detox was at the top of a one-page description of detoxification medications and how to use them, "Call day or night if you need help." The support person was taught how to take a pulse and occasionally called that the patient had continuing withdrawal. The need for more chlordiazepoxide administration was discussed over the phone and usually approved.

The support person either pledged to administer disulfiram 250 mg/day for the first year sober or have someone else come for a follow up meeting to learn how important it was to observe the patient while they swallowed the disulfiram, including that this interaction was a demonstration of love. After two days of valproate 2000 mg, it was rapidly tapered and discontinued. Any remaining chlordiazepoxide was discarded on the day after detoxification.

Patients attended transference focused psychotherapy, combined with pharmacologic management of persistent low level alcohol withdrawal symptoms such as anxiety and insomnia, and for treatment of comorbid disorders such as nicotine addiction, ADHD, and depression, starting the next day, for as long as they felt it was necessary. Patients were seen daily for the week of detoxification and twice a week after that. Clinicians suggested discharge when all comorbid disorders, including nicotine addiction, were in remission, and the patient was in a stable, long-term process of recovery, usually including AA.

Over a nine-year period ending in March 2023, 42 patients, 21 women and 21 men (50% each), average age 42, range 22 – 76, had alcoholism treatment requiring detoxification. There were 69 withdrawal treatments. The number per patient was: 28 (67%) once, 9 (21%) twice, 2 (5%) three times, 2 (5%) five times, 1 (2%) seven times. Multi-detoxification treatments were often over a long interval. For example, the patient who had 7 detoxes was seen for psychotherapy 120 times over 7 years and was discharged from our service to a recovery that included AA and a church-based addiction group, with sober periods of 3.5 and 1.5 years, before presenting with a relapse.

67/69 (97%) outpatient detoxifications were completed, as reflected by appearing for treatment the next business day. One patient brought vodka in a water bottle that she sipped from nonchalantly while she had her 9 am assessment. She received 2,000 mg of valproate before her BAL was available. She had such profound behavioral tolerance that she was chatting on her cell phone as the ambulance attendants wheeled her out with a BAL of 475. She returned after a two-day hospitalization; the duration probably reflecting the attenuation of withdrawal by valproate loading. One patient disappeared after filling prescriptions for his third detoxification and was never heard from again.

15 (22%) detoxifications required more than 3.5 hours, either because the patient did not stop drinking by midnight and medications had to be held from 9 am until withdrawal symptoms allowed them to be administered safely, or the withdrawal was so severe that more time was needed.

Of the 67 completed detoxifications: 5 patients received no chlordiazepoxide, 1 – 50 mg, 5 – 100 mg, 2 – 150 mg, 19 – 200 mg, 2 – 250 mg, 15 – 300 mg, 1 – 350 mg, 2 – 400 mg, 1 – 450 mg, 9 – 500 mg, 1 –

600 mg, 1 – 700 mg. For 3, chlordiazepoxide doses were not recorded. One patient was already on 500 mg/day of lamotrigine, so was not loaded on valproate.

The most significant marker of response to treatment was the clinical status of the patient, often going from hyperalert, frightened, shaking, and nauseous, to calm and sedated. Systolic blood pressure response was variable. For 10 detoxifications it rose, by as much as 15. For 51 where it fell, by as much as 46.

The PAWSS score was > 3 for 59 detoxifications (86%), 3 for 9 detoxifications and 2 for 1 detoxification. Detoxifications that scored 3 included one patient whose BP went from 158/90 to 130/70 two hours after loading on valproate and 200 mg of chlordiazepoxide, and one patient whose BP went from 150/120 to 140/80 two hours after loading on valproate and 300 mg of chlordiazepoxide. One detoxified patient had ascites caused by alcoholism.

HRSD < 8 for 3 patients, 8-19 for 16 patients, > 20 for 22 patients. One patient was too intoxicated for HRSD on admission but scored 30 subsequently. Overall provisional depressive diagnoses: no depression 3 (7%), dysthymia 16 (38%), severe depression 23 (55%).

SCID2 < 7 for 20 (48%), > 6 for 22 (52%). Depression and ADHD were present for 14 patients (33%). 12 (29%) had depression, ADHD, and borderline personality. 3 (7%) had no comorbid psychiatric disorder.

24 patients (57%) were addicted to nicotine. 9 (21%) were addicted to alcohol and no other drugs. 13 (31%) reported drinking dreams.

Following detoxification, 12 (29%) patients arrived for 4 – 9 psychotherapy hours, 9 (21%) for 10 – 19, 12 (29%) for 20 – 50, 9 (21%) for more than 50 psychotherapy hours.

By the end of treatment 27 patients (64%) were attending AA.

A follow up review of patient outcomes was conducted in 2023, an average of 41 months after the start of treatment. 13/42 were interviewed. 3 had died. 26 could not be reached.

10/13 patients indicated that the medication protocol was effective, and that they did not have significant withdrawal symptoms. One complained of oversedation. One patient reported the detoxification protocol was effective but that they had significant withdrawal symptoms. One attributed withdrawal symptoms of nausea, anxiety, and ongoing craving for alcohol to the medications.

6 patients preferred our outpatient alcohol detoxification procedure to inpatient alcohol detoxification services, with common expression of appreciating the ability to remain outpatient and be at home while going through the detoxification process. For example, one patient remarked after his brief detoxification, that his last experience had been sweating, shaking, and vomiting, with dangerously high blood pressure, for five days in the hospital. 5 reported having no inpatient alcohol detoxification experience. One

patient's phone was disconnected before this question was asked. One patient said that they had had a better experience in a private hospital with permanent staff instead of our rotating students.

10/13 reported current abstinence from alcohol, with 9 patients being abstinent for 6 months or greater. 3 patients were currently consuming alcohol regularly. 5/13 were attending AA meetings. 6/13 patients reported current nicotine use. 3/13 reported current cannabis use. All 13 denied any other current substance use at time of follow up.

Discussion

The neuropsychanalytic approach of combining the systematic observations of twice a week transference focused psychotherapy, neuroscience, in this case noticing that valproic acid and chlorthalidone have a synergistic interaction propitious for alcohol withdrawal, counting things, and including our patients as contributors of feedback to modify our approach, has solved problems regarding the expense and effort involved in detoxification, what to do about relapse, and continuity of care from detoxification to aftercare.

At the average cost of \$3,000/day, the price for a 5-day inpatient alcohol detoxification is \$15,000.

Pouring effort into helping an alcoholic patient who is more likely than not to avoid aftercare creates a feeling of hopelessness in hospital staff. Treatment often feels like palliative, end of life care.¹⁴ Starting engagement with an outpatient detoxification is a joy for our staff.

Comorbid psychiatric illness and addictions were the rule. Carrying out the treatments on a service that addressed alcoholism holistically allowed for a combination of psychotherapy and pharmacology. Lack of AA attendance often reflected the defense of avoidance. It was responded to with the question, "Most people with good recovery get to know people in AA, join a group, and get a sponsor. You are not going. What is your thinking about this?" The invariably unique patient response was further explored with clarification, confrontation, defense interpretation, and transference interpretation.

One way to conceptualize schools of psychotherapy is that the cognitive behavioral therapist wants to deliver expert recovery skills, the contingency management therapist chooses goals that are rewarded if the patient proves that they have met those goals, while the psychoanalyst ideally contributes nothing except helping the patient to do their own good thinking about having alcoholism, and what to do about it. We regard motivational interviewing as a version of the psychoanalytic approach that confines interpretations to only clarification and confrontation; rebranded as "reflexive listening," and "double-sided reflection." The psychoanalytic goal to initiate no ideas but rather interpret the patient's free associations makes it ideal for collecting systematic observations about the nature of addictive illness.

Neuropsychanalytic treatment, starting with outpatient detoxification, resulted in a strong therapeutic alliance. Not one patient developed seizures or delirium tremens. Mortality was low for such a sick and progressed cohort. The two patients who had initial systolic blood pressures of 158 and 150 had severe

withdrawal that did not qualify them for a PAWSS score of 4 because they had profound denial of illness that resulted in no previous treatment or AA attendance.

Limitations of this report include the lack of randomization to an alternative treatment, for example, chlordiazepoxide alone compared with loading on valproate with concomitant chlordiazepoxide treatment. This would have to be done in a hospital for safety. The senior author applied to do this. IRB feedback was that consenting subjects when they were shaking, vomiting, and often terrified, was unethical, and that randomizing them on admission and consenting them the next day, when withdrawal was in remission, was unethical because they would have been entered in a randomized, double blind research study without consent.

Conclusions

Valproate and chlordiazepoxide loading by the same outpatient providers who treat after detoxification is safe, cheap, effective, and humane. The requirement that a sober support person attend the initial assessment and accompany the patient during detoxification addresses the patient's denial of the need for help and in many cases, extends recovery to the family. Having observed disulfiram administration for the first year sober stabilizes patients who otherwise might respond to craving and drinking dreams with relapse and provides time and the safety needed to engage in AA. Overall, these results indicate that outpatient alcohol detoxification may play an important role in facilitating abstinence from alcohol, comparable or better than inpatient alcohol detoxification services.

Declarations

Author Contributions

Brian Johnson developed the reported approach and wrote the first draft and subsequent drafts of the paper.

Brian Koch conducted and wrote the follow up study. He amended subsequent drafts of the paper.

Competing Interests

The authors declare no competing interests.

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