

ADMISSION BLOOD ALCOHOL LEVEL AS PREDICTOR OF SEVERITY AND
COMPLICATIONS OF ALCOHOL WITHDRAWAL: A RETROSPECTIVE STUDY

A THESIS

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by

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Abstract

The purpose of this retrospective study was to determine if detoxification patients' admission blood alcohol levels are an accurate predictor of severity and complications of alcohol withdrawal. All fourteen nurses employed on a general hospital detoxification unit were taught to use the CIWA-Ar* Scale and used the scale to assess all alcohol detoxification patients. Comparisons were made between the patients characterized by high blood alcohol levels (greater than or equal to 150 mg/dl) at admission (N=13), and those patients characterized by low blood alcohol levels (less than 150 mg/dl) at admission (N=28). These two groups of subjects were then compared on two measures: (a) severity of alcohol withdrawal, as measured by the 10 item Clinical Institute Withdrawal Assessment - Alcohol (revised)* (CIWA-Ar*) scale, and (b) the presence of complications, specifically seizures or delirium tremens, during the detoxification process.

An independent groups t test was executed to evaluate the first research hypothesis, that patients with high blood alcohol levels at admission to a detoxification unit would have significantly more severe symptoms of alcohol withdrawal than patients with low blood alcohol levels (as measured by the CIWA-Ar* scale). The average CIWA-Ar* score of the 28 patients in the low blood alcohol group did not differ significantly from the average total CIWA-Ar* score of the 13 patients in the high blood alcohol group ($M = 11.69$; $SD = 6.69$,

$t(30) = -1.46, p > .05$). The results of this analysis did not provide support for the first hypothesis.

A Chi-Square Analysis, with corrections for violations of minimum cell size, was performed to evaluate the second research hypothesis that there would be a significant difference between patients with high blood alcohol levels and those with low blood alcohol levels on admission, in the presence of complications during the detoxification process. Analysis showed no significant differences in the presence of complications for the two blood alcohol level groups ($\chi^2(1) = 1.0, p > .05$) and therefore did not provide support for the second hypothesis. A power analysis was executed and determined that the sample size would need to be increased by at least 41 patients in both group 1 and group 2 to yield significance.

The results of this study support the continued need for research to determine accurate indicators of severity and complications of withdrawal. It also recommends the use of standardized, valid, and reliable, instruments such as the CIWA-Ar* to assess and quantify the withdrawal syndrome. Further recommendations are for these assessments inclusion in basic nursing curriculum.