Session/Poster# Presenter

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**A Proposed Study of the Effects of Front-Loading Phenobarbital to the Standard Benzodiazepine Therapy for Adult Alcohol Withdrawal Patients**

Background: Annually, over 1.5 million individuals in the United States are admitted to a hospital or detox facility due to alcohol withdrawal (AW). In those accustomed to regular alcohol intake, the central nervous system continually compensates for alcohol's depressive effects on brain function and communication among nerve cells; thus, once the alcohol level is abruptly lowered, the brain remains hyperactive and causes a withdrawal syndrome. Patients in AW are typically placed on a benzodiazepine monotherapy protocol based on the Clinical Institute Withdrawal Assessment for Alcohol, Revised (CIWA-Ar). Oftentimes, patients require high doses that exceed 10 mg lorazepam equivalents in 1 hour, which provide little benefit and place patients at risk for increased morbidity and mortality, oversedation, respiratory depression, intensive care unit (ICU) delirium, and hyperosmolar metabolic acidosis.
Purpose: To investigate the effects of phenobarbital as an adjunctive pharmacological agent in the management of alcohol withdrawal syndrome (AWS) through measurable outcomes, primarily ICU admissions.
Methodology: A quantitative, quasi-experimental study will be conducted over the course of a year to examine if a reduction in ICU admissions has occurred. Adult patients at an acute care facility, ages 21 to 64 years old, who meet inclusion criteria will form a control group of 50 individuals and a treatment group of 50 individuals. Collection and analysis of other AWS metrics in the electronic health record include CIWA-Ar scores, episodes of delirium tremens, length of stay, mechanical ventilation, and 30-day readmission with AWS.
Data Analysis: Bivariate analysis with Pearson's r, two-tailed t-tests, and multiple regression.
Implications: This study can contribute to the body of evidence exploring alternative and adjunctive therapeutic agents to benzodiazepines for the effective management of patients with AWS in inpatient and outpatient settings.