NAPCRG 52nd Annual Meeting — Abstracts of Completed Research 2024.

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Title

Absinthe Minded: The Forgotten Phenobarbital

Priority 1 (Research Category)

Acute and emergency care

Presenters

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Abstract

Context: A majority of the 6% of US adults with alcohol use disorder will experience withdrawal. Standard of care for withdrawal involves utilization of the Clinical Institute Withdrawal Assessment for Alcohol revised (CIWA-Ar), a subjective score, and reflexive use of benzodiazepines despite notable associated risks and harms (hypotension, coma, respiratory depression). Although historically used, phenobarbital has fallen out of favor in treatment of alcohol withdrawal despite no studies demonstrating inferiority to benzodiazepine treatment regimens. Objective: Evaluate the use of phenobarbital and benzodiazepines in alcohol withdrawal to compare lengths of hospital stay, total medication dose, and other clinical outcomes. Study Design: Secondary data analysis. Cohort matching (age, sex, race, ethnicity, BMI) was used for statistical analyses.

Setting or Dataset: Emergency departments at two hospitals in one metropolitan area in the U.S. Midwest. Population Studied: Patients aged 18-75 years admitted to the ED for alcohol withdrawal between Jan 1, 2021 – Oct 1, 2023 that received treatment with benzodiazepines only (BZD group) or a combination of benzodiazepines and phenobarbital (PB group). Intervention/Instrument: N/A. Outcome Measures: Length of hospital stay, amount of benzodiazepine given (mg), CIWA-Ar scores. Results: A total 322 patients met eligibility criteria: 278 (86%) in the BZD group and 44 (14%) in the PB group. Forty-two patients from each group were used in cohort-matched analyses. Median length of hospital stay was not significantly different between the matched groups (BZD median 4.7 [IQR 2.8-7.9] days; PB median 5.8 [IQR 3.2-14.5] days; p=.073). The PB group received significantly higher amounts of benzodiazepines during their stay (PB median 39.5 [IQR 10.0-133.9] mg; BZD median 7.5 [IQR 3.0-17.0] mg; p=.006), but there was not a significant difference in the amount given within 24 hours of admission. The PB group had significantly higher CIWA-Ar scores documented (median 6.0 [IQR 7.0 – 7.9]) than the BZD group (median 3.0 [IQR 2.0-4.4]; p<.0001). Conclusions: Our project did not find a

significant difference in LOS for patients that received phenobarbital compared to a benzodiazepine-only treatment protocol. Based on the significant differences in amount of benzodiazepine received and CIWA-Ar scores, we can infer that a phenobarbital-driven treatment protocol is likely being used for patients with more severe withdrawal symptoms.