Presented at the ACMT Annual Scientific Meeting 2024 – Washington DC

Published in J Med Tox 2024; 20:87.

187. Trends in Alcohol Withdrawal Management: A Single-Site Analysis of the Toxicology Investigators Consortium (ToxIC) Core Registry 2017-2022

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Background: Alcohol withdrawal syndrome (AWS) is a life-threatening condition with multiple management modalities available. While benzodiazepines are the mainstay of treatment, we aim to elucidate the use of other medications, including phenobarbital, ketamine, and dexmedetomidine, in the management of AWS.

Hypothesis: Phenobarbital, ketamine, and dexmedetomidine are used with increasing frequency during the study time- period to manage AWS.

Methods: This is a retrospective review of de-identified cases submitted to the ToxIC Core Registry from a single health system between January 1, 2017 and December 31, 2022. All adult cases in which AWS was the sole reason for toxicology consultation were included. Descriptive statistics were used for analysis.

Results: This cohort included 457 cases of AWS. The average age was 51 years (22-84 years), with 77.7% male (n = 355) and 22.3% female (n = 102). Neuromuscular hyper- activity, including tremor, was present in 49.0% (n = 224) of cases, agitation in 25.2% (n = 115), delirium in 16.0% (n = 73), hallucinations in 12.0% (n = 55), and seizures in 11.6% (n = 53). Intubation was performed in 7.7% (n= 35) of cases. In 2017, more patients were managed with benzodiazepines alone than phenobarbital with or without benzodiazepines (66.7% vs. 25.9%). In each year from 2018 to 2022, more patients received phenobarbital with or with- out benzodiazepines than benzodiazepines alone (82.8% vs. 17.2% in 2018, 77.8% vs. 22.2% in 2019, 80.0% vs. 11.3% in 2020, 75.2% vs. 19.7% in 2021, and 66.1% vs. 27.4% in 2022). Ketamine and dexmedetomidine were used in no cases in 2017 but were administered in 3.0% (n = 5) and 3.6% (n = 6) of cases, respectively, in 2022.

Conclusion: An approach incorporating phenobarbital has replaced a benzodiazepine-only strategy as the most common method for managing AWS in our single-center cohort. Use of ketamine and dexmedetomidine showed an overall increase during this period. Limitations include self-reported, retrospective data from one site and the potential for missed cases.