

Title: Single-dose intravenous ketamine or intramuscular naltrexone for high-utilization inpatients with alcohol use disorder: pilot trial feasibility and readmission rates.

Background/Significance:

Alcohol use disorder (AUD) impacts 15 million Americans leading to 5 million annual emergency department (ED) visits and 2 million hospital admissions. Hospitalization is a vital opportunity to intervene, and two single-dose pharmacologic interventions (intramuscular naltrexone or intravenous ketamine) given before discharge may be effective at reducing re-admissions and ED utilization. The impacts on reducing hospital utilization of these two interventions are not well known in patients with AUD.

Methods:

Our open-label, pilot trial randomized participants (n=44) to 1) extended-release naltrexone injection (n=14), 2) intravenous ketamine infusion (n=13), or 3) enhanced-linkage alone (n=17). Adult hospitalized participants with severe AUD and at least one past-year admission were recruited through the addiction consult census at an urban, safety-net hospital. The primary clinical outcome was 30-day all cause hospital readmission rate with a key secondary outcome being 30-day ED visits. Demographics, adverse childhood experiences (ACE), Timeline Follow Back drinking history (TLFB), and depressive symptoms (PHQ-9), are recorded at baseline and addiction clinic follow-up visits.

Results:

Most participants were non-Hispanic (63.6%), white/Caucasian (56.8%), males (79.6%) whose highest level of education was high school/GED (54.6%), with a substantial portion without stable housing (38.6%). Clinically, they had a mean of 10.9 past-year ED visits, 3.2 hospital admissions, and a mean of 12.0 daily drinks at baseline. Compared to the LA arm, both the KET arm and NTX arm had lower 30-day readmission rates and ED visits, though the differences were not statistically significant. No major adverse events were reported for either intervention.

Conclusion:

Ketamine and naltrexone showed promise as potential treatments in high-risk patients with AUD, in this small open label pilot study. Though the lower readmission rates and ED visits demonstrated were not statistically significant, participants in our study rated ketamine infusions and naltrexone injections as highly acceptable. Furthermore, ease of administration in a hospital setting was demonstrated. This necessitates further research into these potentially effective interventions in combating AUD.