



# The use of valium in alcohol withdrawal



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## Problem

- Alcohol withdrawal syndrome is commonly seen in patients that meet criteria for Alcohol Use disorder.
- Approximately 16 million adult Americans meet criteria for a diagnosis of Alcohol Use Disorder (Elliot, 2019).
- When patients develop alcohol withdrawal as an inpatient, their morbidity, mortality and length of stay increase (Pace, 2020).
- Withdrawal symptoms can occur within 6-12 hours from the last drink, with symptoms ranging from agitation and hypertension to seizure and delirium tremens (Muzyk et al., 2011)

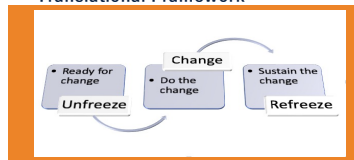
## Background

- Ativan and Valium are both widely used in the treatment of patients with AWS.
- Medication choice is based on the need to control patient's symptoms. For rapid control Valium is the benzodiazepine of choice.
- Valium has a short action time but also has a long elimination half life which may be beneficial in preventing progression to severe withdrawal, seizure and delirium tremens.
- The CIWA-ar is the gold standard for monitoring patients in alcohol withdrawal and determining need for further treatment.

## Method

- Setting: Gerald Champion Regional Medical Center Alamogordo NM**
- 99 bed facility that houses a 19 bed inpatient Behavioral Medicine Unit.**

### Translational Framework

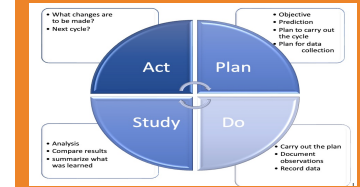


### Kurt Lewin's change model

### PICOT question

**P:** In patients ages 21-65 admitted to the hospital with alcohol withdrawal  
**I:** Does front loading with oral Valium  
**C:** compared to symptom-based treatment using CIWA-ar (Clinical Institute Withdrawal Assessment for Alcohol- Revised)  
**O:** By decreasing the amount of benzodiazepine needed during withdrawal  
**T:** To be assessed over a 5-week time frame.

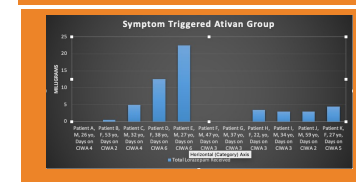
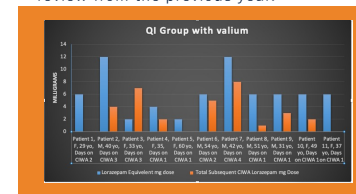
### PDCA model



Patients were screened for likelihood of alcohol withdrawal syndrome. Those that met inclusion criteria received valium in place of Ativan as their initial treatment.

## Results

- Average census for 16 patients per day.
- 11 patients were admitted to Behavioral Medicine over the 4 weeks time frame that met inclusion criteria for the 4 week QI project.
- All patients received at least one 10mg or 20mg dose of oral Valium on admission based on symptoms present.
- 8 patients required maintenance dosing with Ativan after the loading phase due to elevated CIWA-ar scores.
- None of the patients in the QI project required a higher level of care due to their alcohol withdrawal.
- No significant difference in the amount of benzodiazepine used between the QI implementation group and the chart review from the previous year.



- There was a noted difference in the activity level of the patients when comparing the two groups. The front-loading Valium group was noted to be sleepy but rousable, participating in therapy and maintaining

## Conclusion

- Alcohol withdrawal syndrome is effectively treated with benzodiazepines.
- Progression of alcohol withdrawal symptoms to the later stages is estimated to occur 20% of the time, with appropriate treatment this is reduced to less than 5% (Pace, 2018).
- Front loaded oral Valium is an effective treatment option for alcohol withdrawal syndrome, as are Ativan, Librium. For those with severe liver disease Serax is an appropriate choice.

## References

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