CLINICAL IMPACT OF A PROACTIVE DIAZEPAM LOADING PROTOCOL ON PATIENTS WITH ALCOHOL WITHDRAWAL SYNDROME
Alcohol dependence accounts for approximately 20% of hospital and approximately 39% of intensive care unit (ICU) admissions in the United States.

Complicated alcohol withdrawal syndrome (AWS) is associated with increased in-hospital morbidity and mortality, increased length of stay, inflated cost of care, increased burden and frustration of nursing and medical staff.

Given that these parameters were above the national average at Danbury Hospital with Lorazepam (Ativan), a new method of treatment with Diazepam (Valium) was made available.

AIMS
AIMS

- Patients were initially treated with an Ativan protocol while repeat admissions were treated with a Valium protocol.

- There were some patients that received Valium first and Ativan in repeat admissions. A comparison of the two would be conducted.
We conducted chart review of 183 charts.

Thirty-eight Alcohol Use Disorder patients (age: Max 72/Min 28 years; female: n= 9 (24%); men: n= 29 (76%), with history of complicated Alcohol Withdrawal Syndrome

(Defined as having documented history of withdrawal seizures, Delirium tremens, Wernicke-Korsakoff Syndrome, neuropsychiatric symptoms cardiovascular complications, or prolonged withdrawal symptoms).
Each patient was hospitalized at least twice between January 2014 and December 2016 for Alcohol Withdrawal Syndrome (AWS).

During their index admission, AWS was treated with oral and intravenous Ativan symptomatically “Treatment-As-Usual (TAU)” (Or vice versa).

In their subsequent readmission, AWS was managed based on the “Diazepam Loading Protocol (DLP)” (Or vice versa).
Between the index TAU admission and subsequent DLP readmission, we compared:

- Length of Stay
- Attempts Out of Bed (Frequency of falls)
- Transfer to Intensive Care Unit
- Aggressive Behavior (with or without restraints)
- Use of Constant Companion
The Riker Sedation-Agitation Scale (SAS)

Score Definition Description:

- **7. Dangerous Agitation** – Pulling at endotracheal tube, trying to remove catheters, climbing over bedrail, striking at staff, thrashing side-to-side
- **6. Very Agitated** – Requiring restraint and frequent verbal reminding of limits, biting endotracheal tube
- **5. Agitated** – Anxious or physically agitated, calms to verbal instruction
- **4. Calm** – Cooperative, easily arousable, follows commands
- **3. Sedated** – Difficult to arouse but awakens to verbal stimuli or gentle shaking, follows simple commands but drifts off again
- **2. Very Sedated** – Arouses to physical stimuli but does not communicate or follow commands, may move spontaneously
- **1. Unarousable** – Minimal or no response to noxious stimuli, does not communicate or follow commands
The Valium protocol is a standing order set for Valium 20 mg PO to be administered every hour for a SAS $\geq 3$ for a total of 8 doses in a 24 hour period.

- Assess SAS Q1H and administer Valium 20 mg PO for SAS $\geq 3$
- Hold Valium when SAS $< 3$, continue to reassess SAS
- Resume Valium if SAS $\geq 3$
- Once the patient has completed the 8 doses and has a SAS $< 3$, the Valium order should be discontinued.
THE ATIVAN PROTOCOL

- **Standing**
  - Day 1 - Ativan 2mg Oral/IV Q4Hours x 6 Doses
  - Day 2 - Ativan 1mg Oral/IV Q4Hours x 6 Doses
  - Day 3 - Ativan 0.5mg Oral/IV Q4Hours x 6 Doses

- **PRN's**
  - Ativan 1mg Oral/IV Q30Minutes PRN for SAS 3-5
  - Ativan 2mg Oral/IV Q30Minutes PRN for SAS >=6
Ativan: 71%
Valium: 6%
Intensive Care Unit Level of Care

Ativan: 26%
Aggressive Behavior (with or without restraints)

- Ativan: 65%
- Valium: 3%