

**CLINICAL IMPACT OF A
PROACTIVE DIAZEPAM
LOADING PROTOCOL ON
PATIENTS WITH ALCOHOL
WITHDRAWAL SYNDROME**

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AIMS

- 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

- 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.

METHODS

- 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).

METHODS

- 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).

METHODS

- **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

- The Valium protocol is a standing order set for Valium 20 mg PO to be administered every hour for a SAS ≥ 3 for a total of 8 doses in a 24 hour period
- Assess SAS Q1H and administer Valium 20 mg PO for SAS ≥ 3
- Hold Valium when SAS < 3 , continue to reassess SAS
- Resume Valium if SAS ≥ 3
- Once the patient has completed the 8 doses and has a SAS < 3 the Valium order should be discontinued

THE ATIVAN PROTOCOL

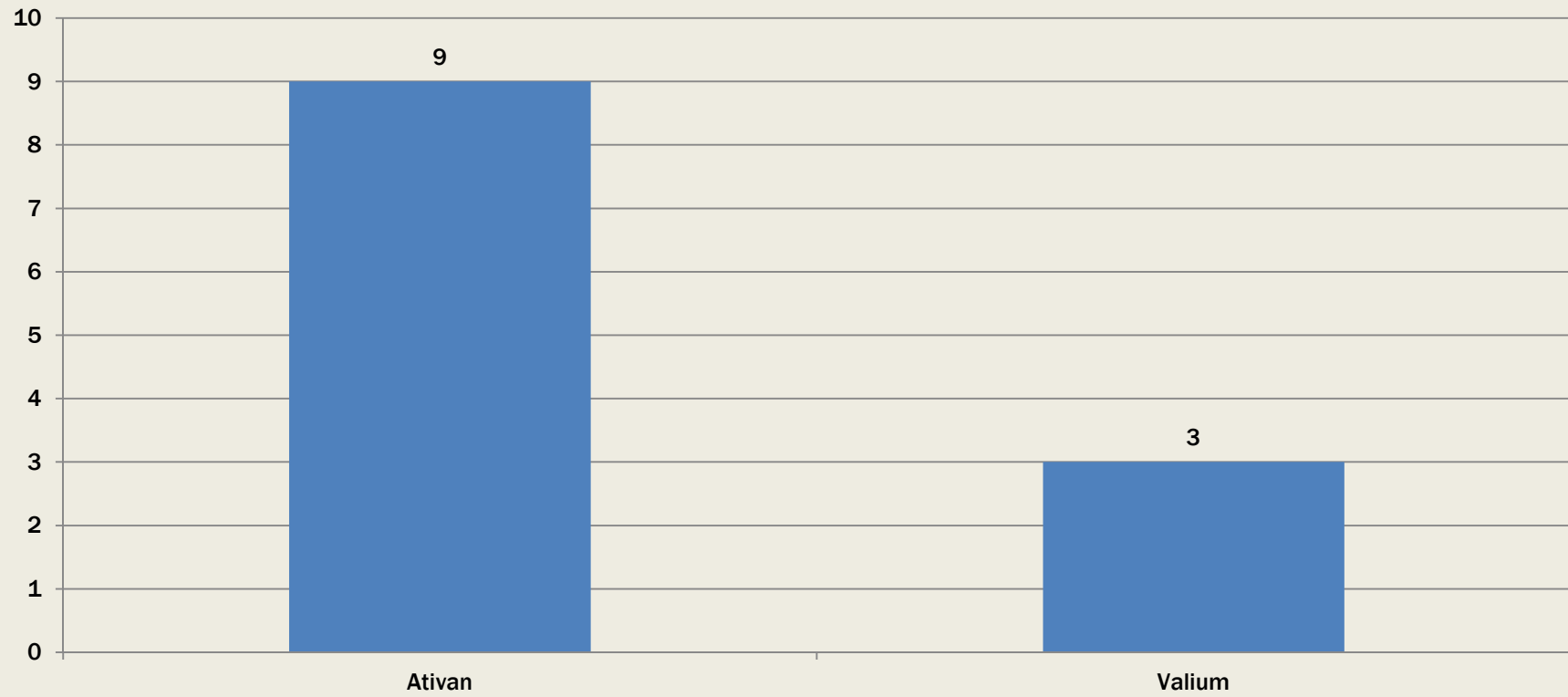
➤ Standing

- 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

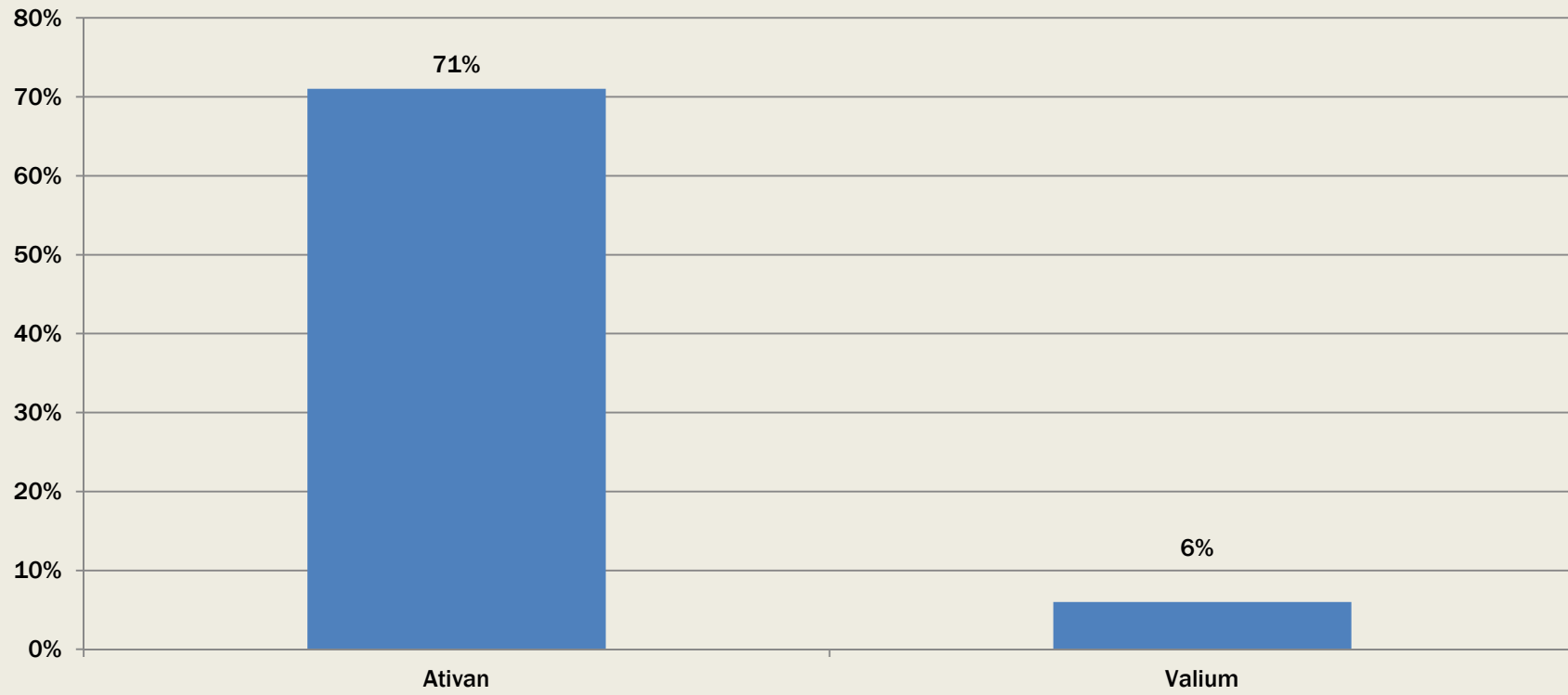
➤ PRN's

- Ativan 1mg Oral/IV Q30Minutes PRN for SAS 3-5
- Ativan 2mg Oral/IV Q30Minutes PRN for SAS ≥ 6

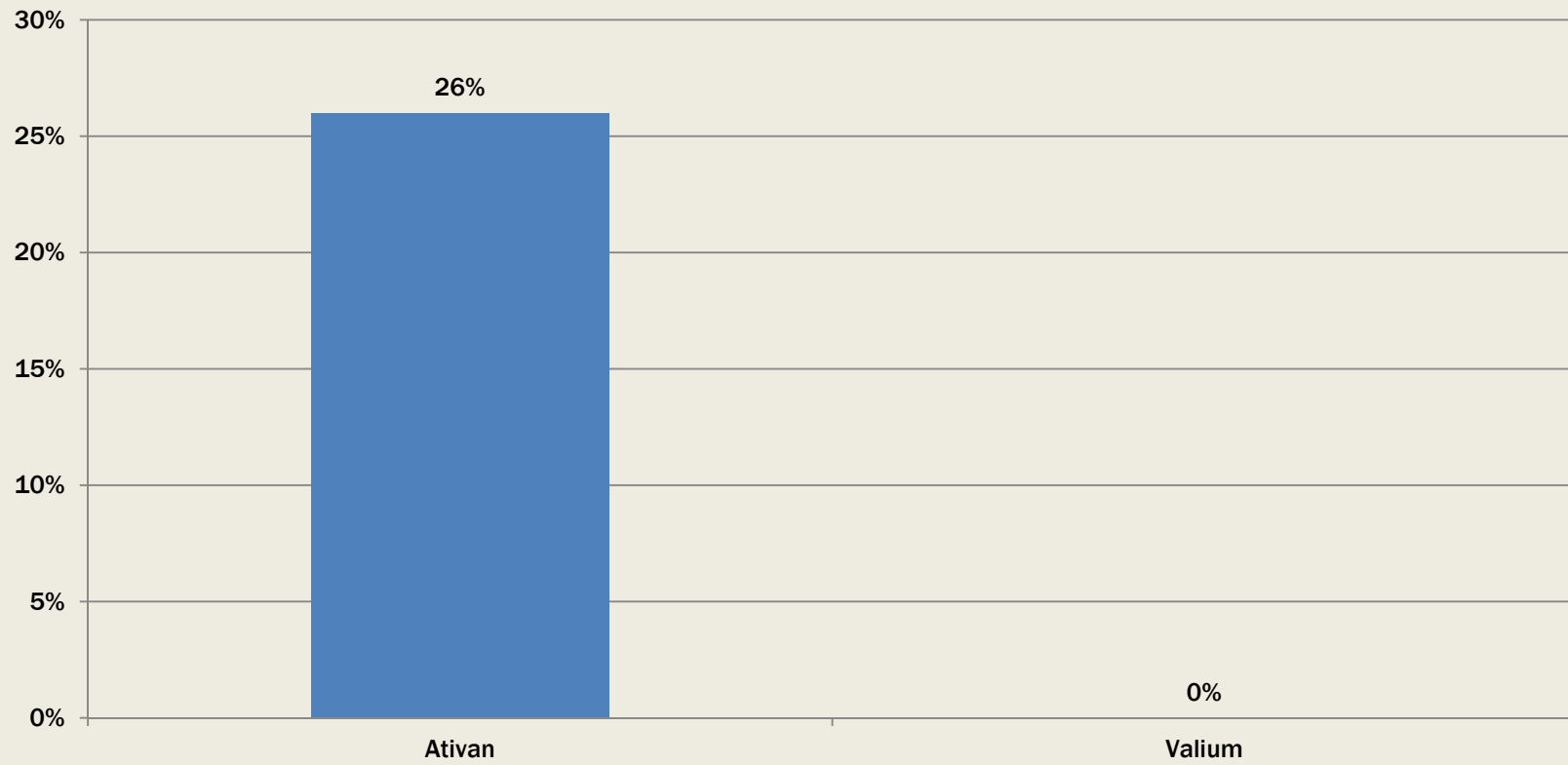
Length of Stay (Days)



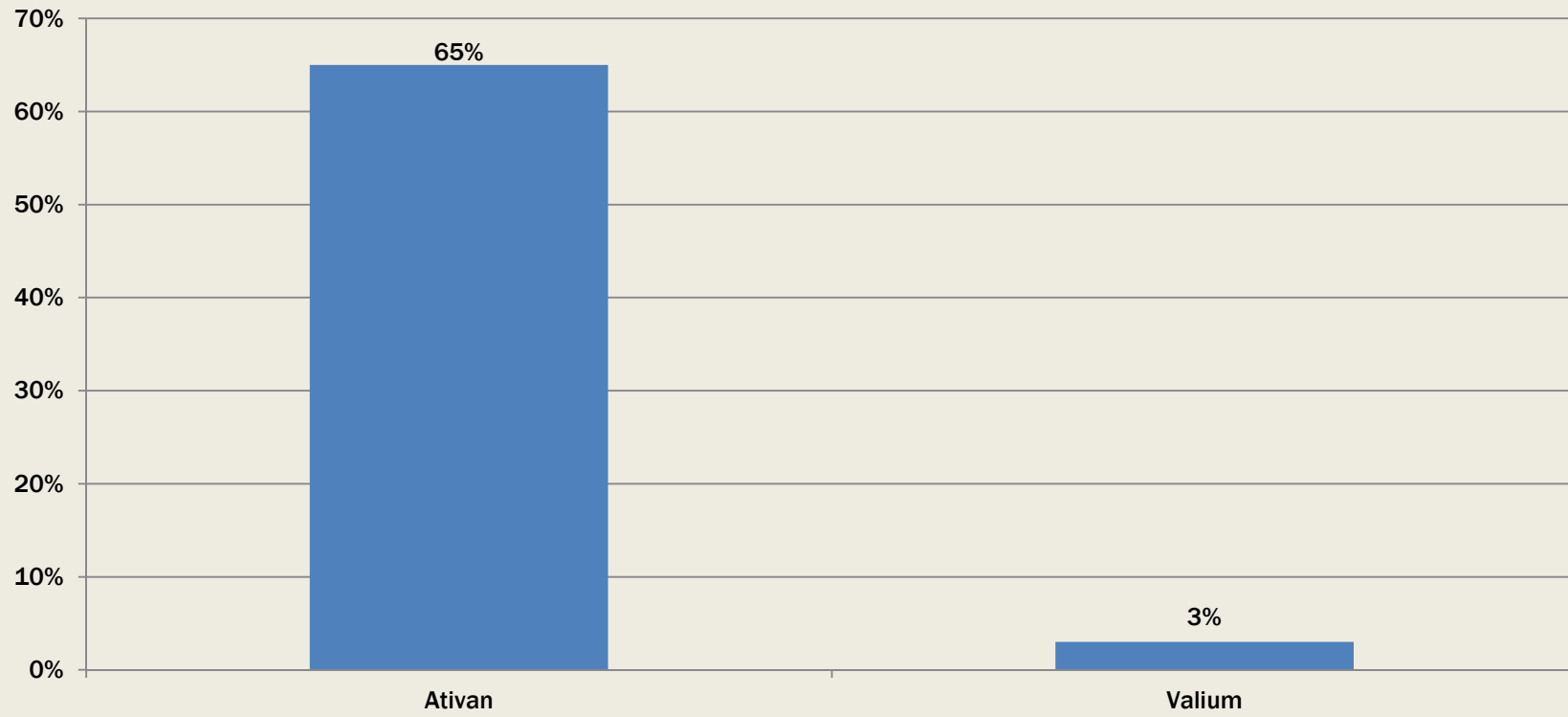
Attempts Out of Bed



Intensive Care Unit Level of Care



Aggressive Behavior (with or without restraints)



Constant Companion Use

