

Clinical Implications of the Introduction of an Alcohol Withdrawal Order Set



By: Drs. Deborah Smith and Jennifer Zymantas

Faculty/Presenter Disclosure

- No financial or personal relationships to disclose

Disclosure of Commercial Support

- Supported by the Northern Ontario Academic Medicine Association (NOAMA) Clinical Innovations Opportunities Fund Award





Objectives

- Recognize that Alcohol Withdrawal Syndrome is a common and serious medical condition
- Describe a process to develop and implement an order set
- Realize the Importance of Quality Assurance









Standardized Symptom Triggered Alcohol Withdrawal Protocol



**KEEP
CALM
AND
FOLLOW
PROTOCOL**



Process to Develop



- Time commitment
 - 1 Year → Create & Implement Order Set
 - 2 Year → Chart Review & Quality Assurance




$$\begin{aligned}P_{nom} &= P \\q_{nom} &= \left(1 + \frac{P}{100}\right) = (1 + i) \\p_{rel} &= P \cdot \frac{1}{m} = \frac{P}{m} \\q_{rel} &= \left(1 + \frac{P}{100} \cdot \frac{1}{m}\right) \\p_{eff} &= 100 \cdot \left(1 + \frac{P}{100} \cdot \frac{1}{m}\right)^m\end{aligned}$$



Retrospective Chart Review

Objectives:

- Examine patient outcomes both pre- and post-implementation of this new order set
- Identify protocol breeches





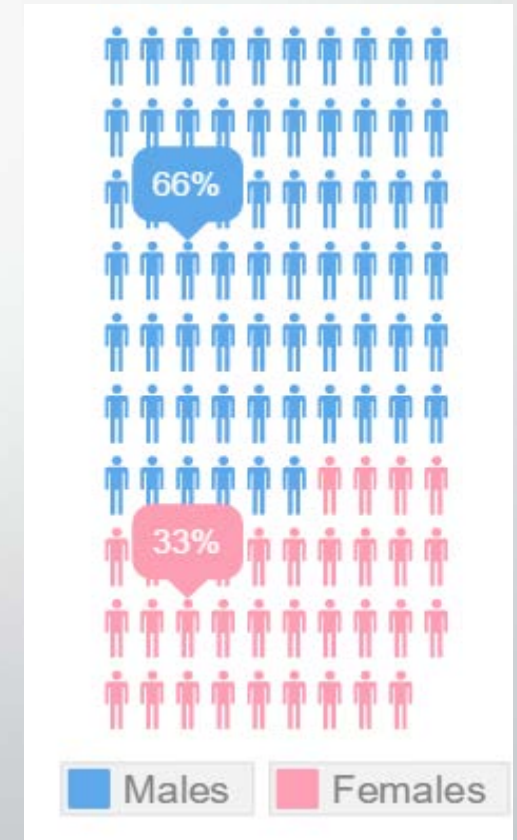


Study Design

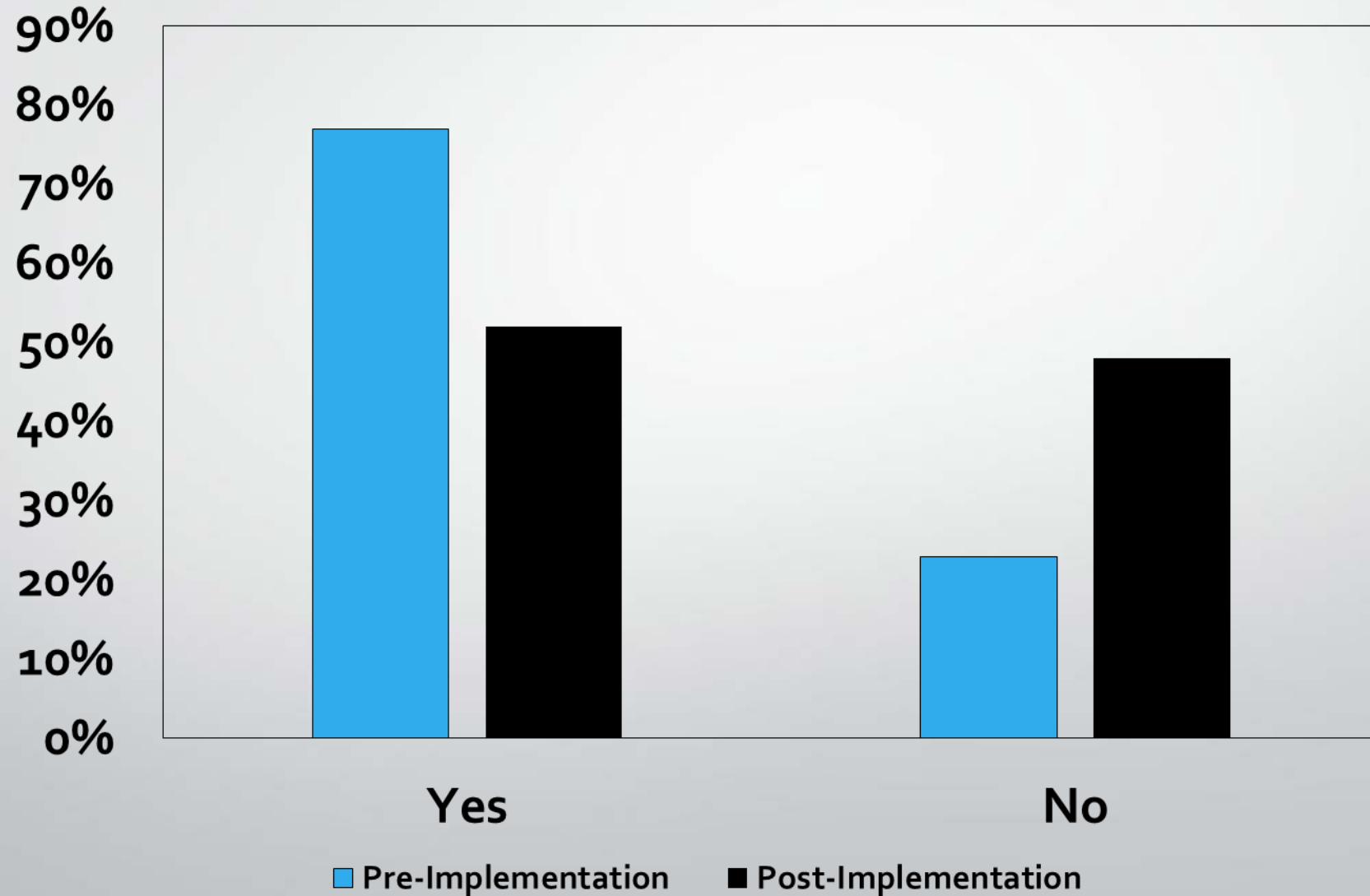
- Matched Pairs (matched for sex and age)
- Initial sample size = 79
- After matching 54 (27 Pre : 27 Post)
- Data analyzed with SPSS 20.0

Patient Population

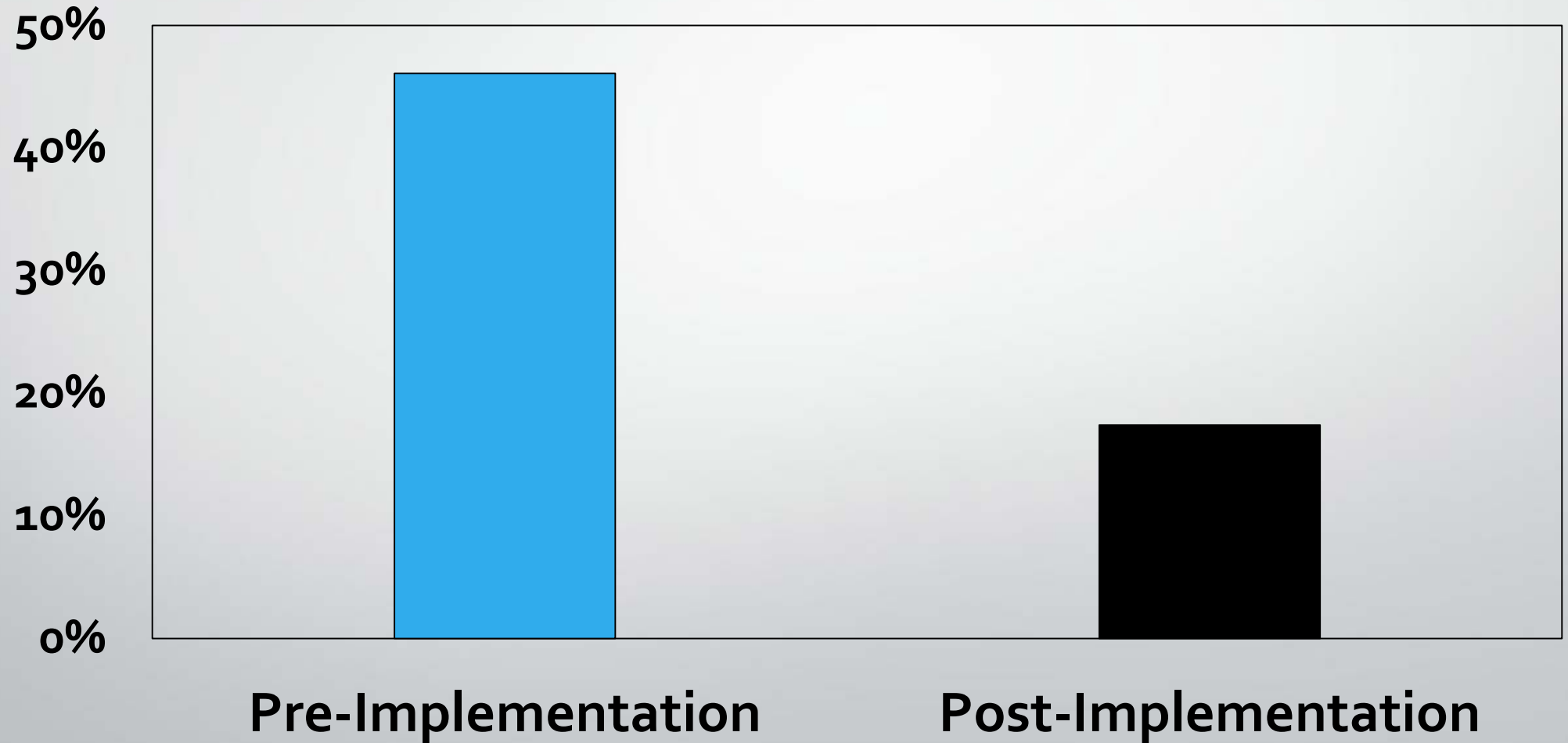
	Pre- Implementation (n=27)	Post- Implementation (n=27)
Patient Age mean +/- SD (years)	57.9 (14.7)	57.6 (14.3)
Patient Sex Female : Male (9:27)	33% : 66%	33% : 66%
Median Duration of Hospital Stay (days)	4.0 (2.0-6.0)	4.5 (2.0-8.25)



Documented Alcohol Intake

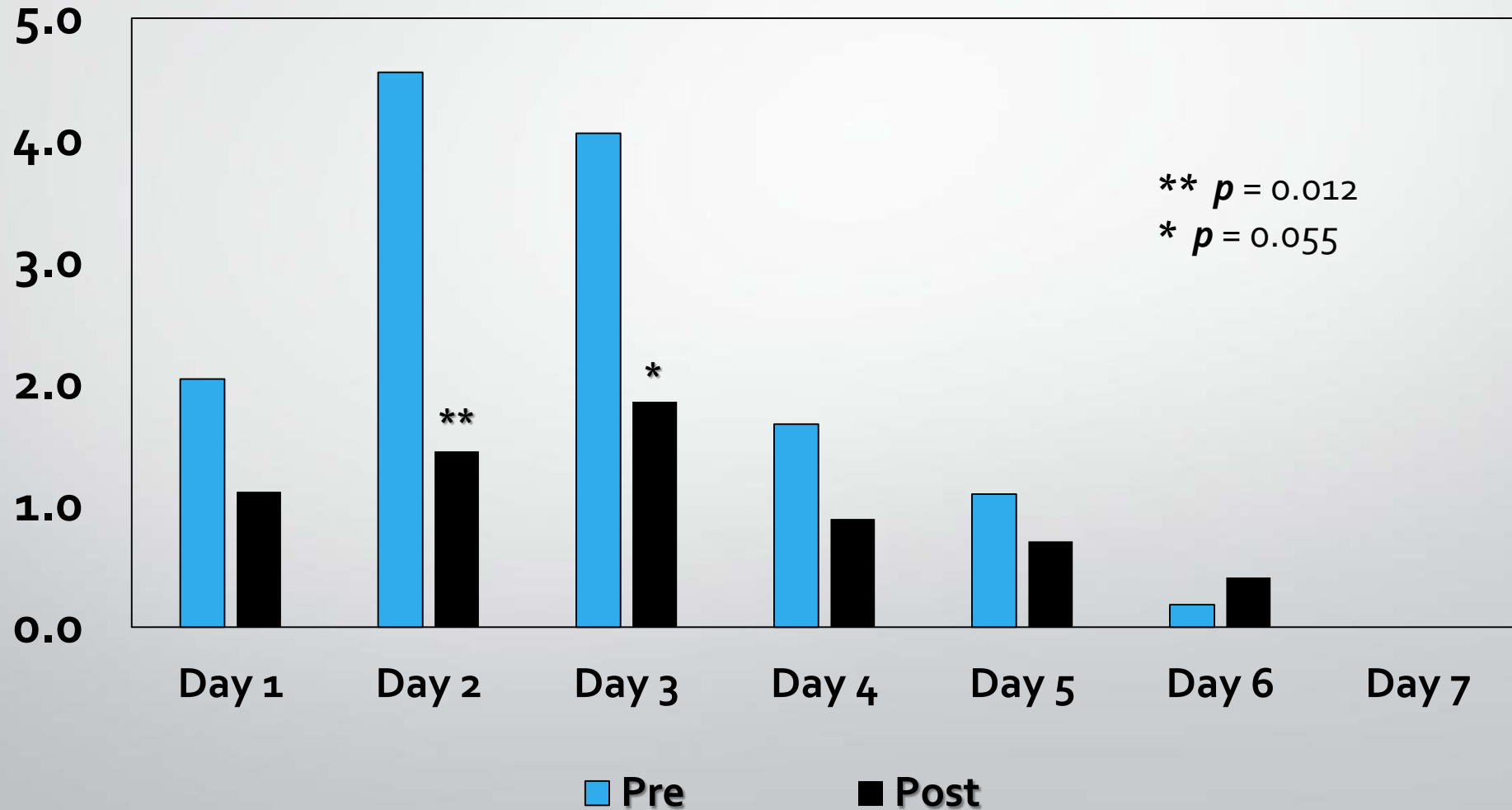


Documented Alcohol Intake in Last 72 Hours

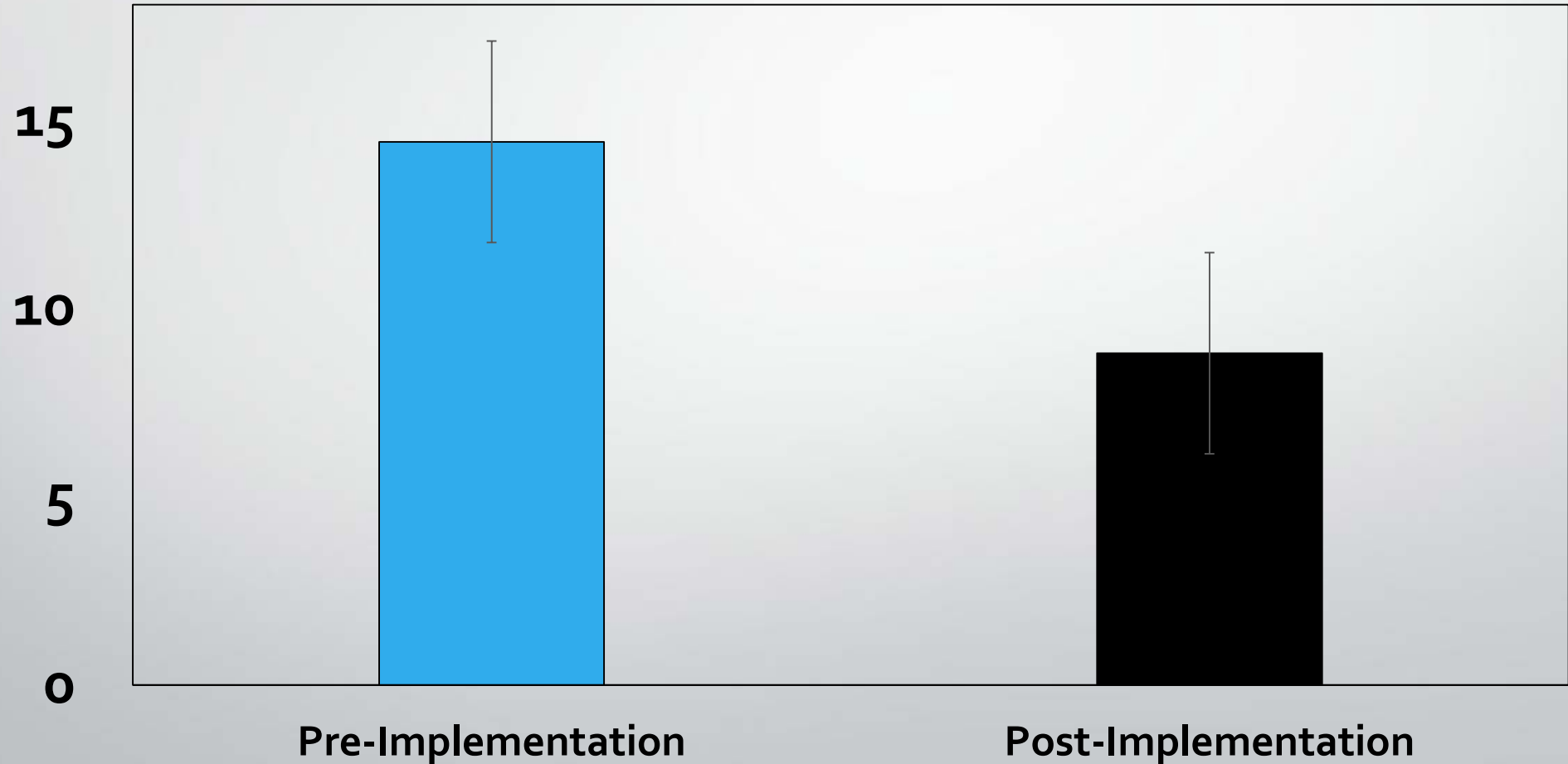


Mean Doses of All Benzodiazepines

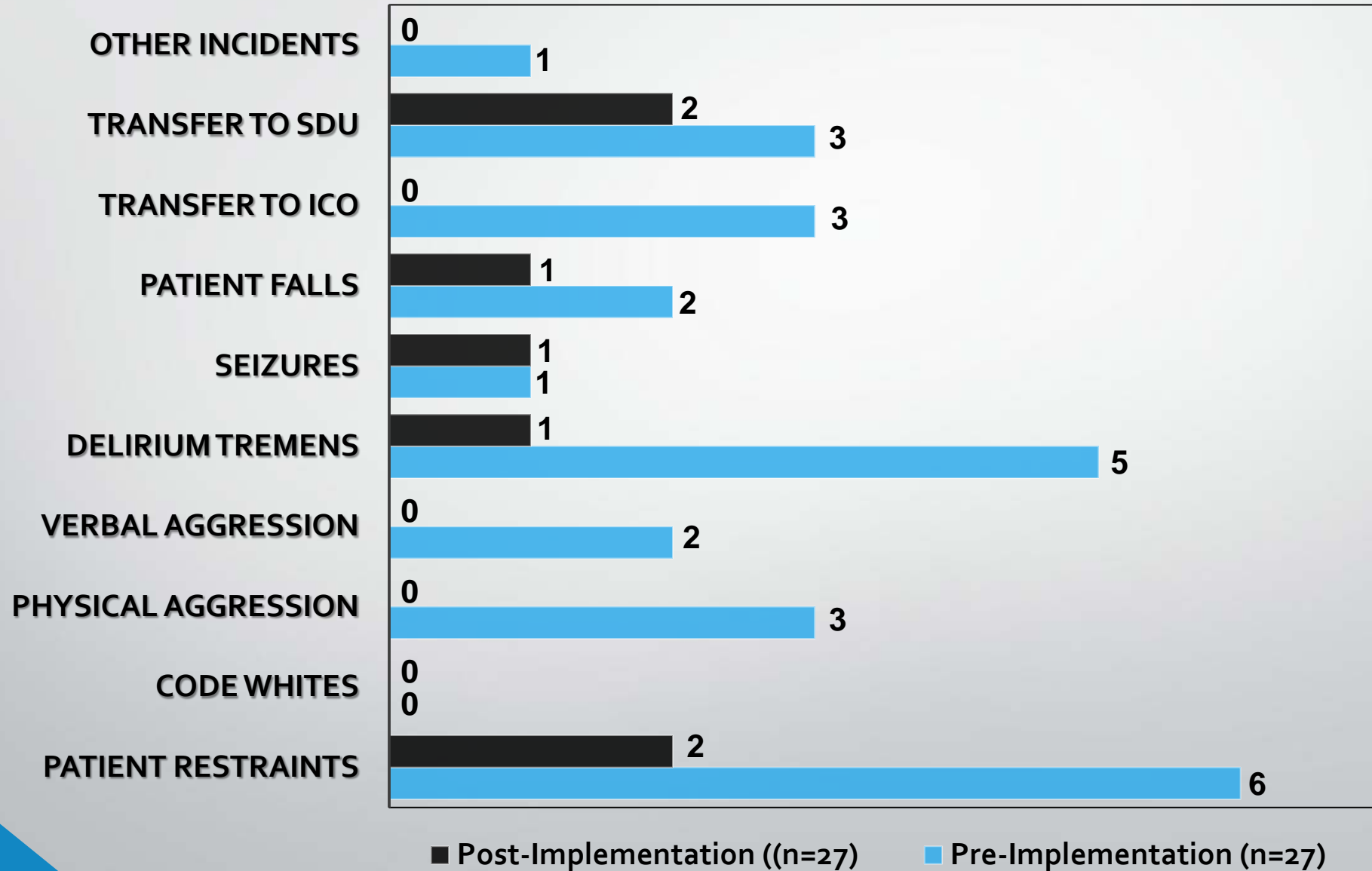
Equivalence: 1 mg Lorazepam



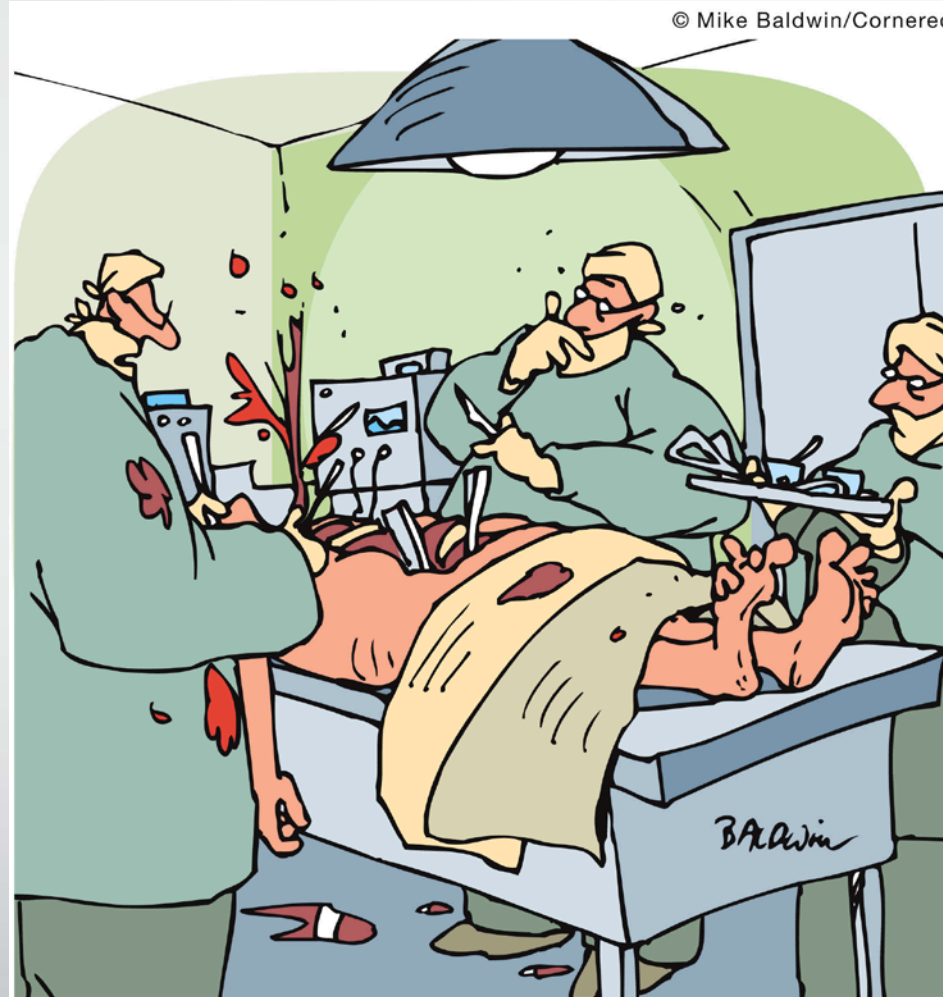
Mean Cumulative Benzodiazepines Equivalent Dose Over 7 Days



Patient Incidents Pre- & Post-Implementation

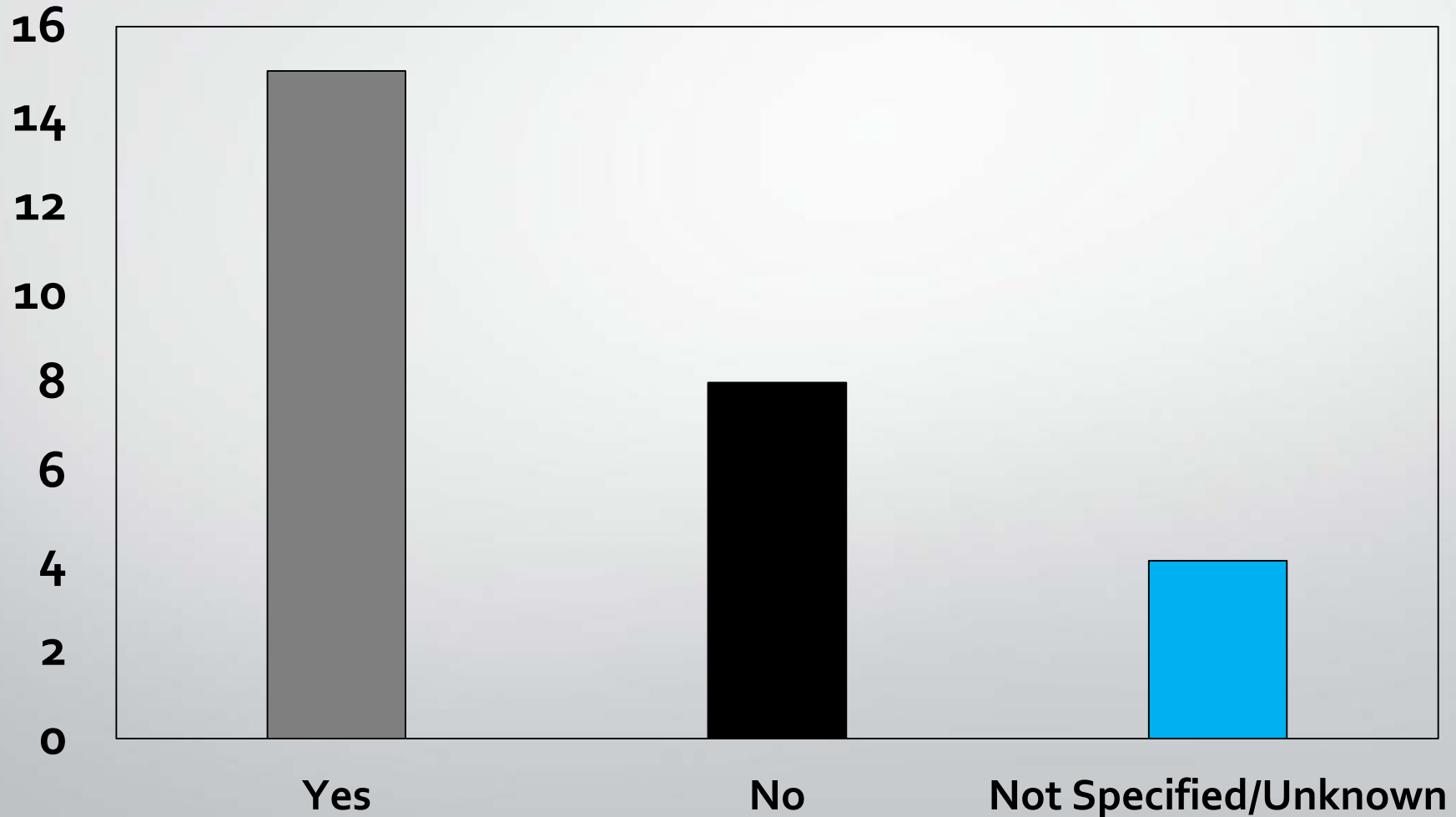


Breeches in Protocol

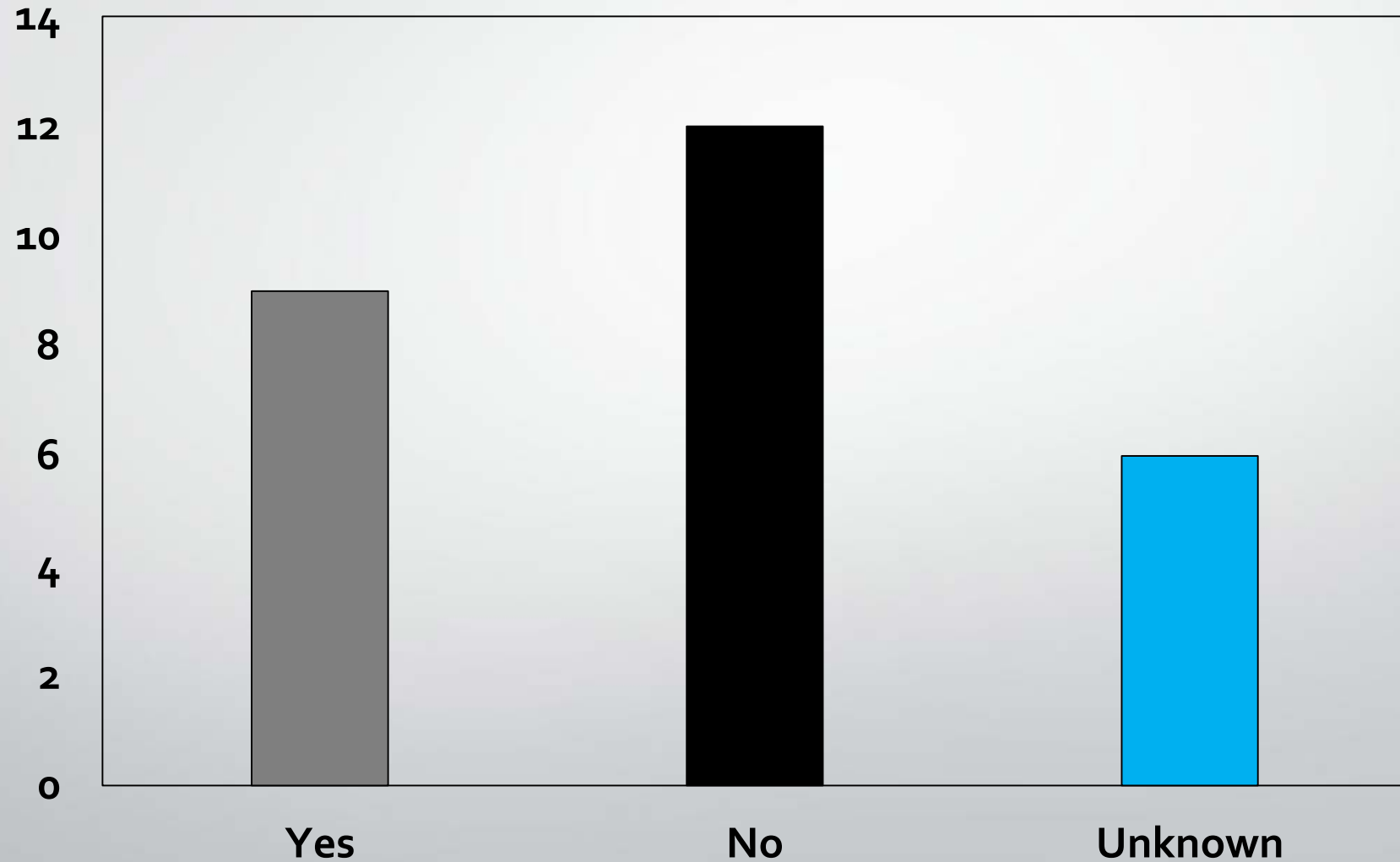


"Oh, man – how many times have I told you? Measure twice, cut once."

Benzodiazepine Administration Without CIWA-Ar Assessment



Correct Benzodiazepine Dose





Summary

- Idea for Alcohol Withdrawal Protocol
- Creating an appropriate Order Set
- Chart Review
- Quality Assurance



Acknowledgements

- Mary Anne Harrison (Research Assistant)
- Elizabeth Lacelle (Nurse Clinician)
- Aline Lemoyne (Chart Forms)
- NOAMA Clinical Innovations Opportunities Fund Award



Questions ???

THANK YOU!!!



debsmith@nosm.ca

jzymantas@nosm.ca