Materials and Methods

Method
Electronic Medical Record (EMR) retrospective chart review of adult patients admitted to the CVICU and ICU with alcohol withdrawal. Each patient population was divided into three groups according to pharmacologic regimen.

Study Groups
The study was conducted by categorizing patients into three distinct groups (Figure 2).
- Group 1: 45 BZD only
- Group 2: 5 patients were prescribed DEX in addition to BZD
- Group 3: 14 alternative medication therapy only

Variables Measured
- Vital signs including heart rate, respiratory rate (Figure 3), pulse oximetry, and systolic blood pressure; CIWA-Ar scores; length of stay (LOS); mechanical ventilator (MV) days; adverse events; use of restraints/1:1 sitters

Results
- Of the 1761 CIWA-Ar patients, 64 (2.3%) were pharmacologically treated in ICU/CVICU:
  - Group 1: 45 BZD only
  - Group 2: 5 patients were prescribed DEX in addition to BZD
  - Group 3: 14 alternative medication therapy only
- No significant differences in vital signs, except respiratory, were observed between the three groups.
- Respiratory rates demonstrated a significance at 24 hours (P=0.002), and 48 hours (P=0.00).

Discussion
There are a few distinct problems with the retrospective chart review performed for this study. It was noted that DEX was ordered well into a patient’s withdrawal, when BZDs alone did not control the patient’s withdrawal symptoms. Also, because of the inconsistent use of CIWA-Ar and DEX in the facility, a relatively small sample size was used for Groups 2 and 3. This, along with the multiple variables assessed in the audit tool made it challenging to distinguish a statistically significant difference between groups. The study would have benefited from a larger sample size in each cohort, as well as a more focused area of concern.

Conclusions
The concurrent use of DEX with BZD represents an effective alternative to traditional medication regimens for alcohol withdrawal. This study highlighted that the CIWA-Ar was not used consistently and appropriately in this setting, despite the evidence that it is an effective for this purpose. A DEX with BZD protocol will be developed and implemented with re-education of the use of CIWA-Ar as a result of this study.

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