

Background

Alcohol use disorder (AUD) is a frequently encountered complication of inpatient admissions with an estimated occurrence in 11-32% of hospitalized patients.³ Consequences of AUD include development of AWS, which can present as a variety of symptoms ranging from mild to severe (see below) but with the possibility of severe sequelae such as seizures or even fatality. Symptoms can begin anywhere from 6-24 hours after last alcohol ingestion and may last 5 days or more depending on the severity of withdrawal.^{3,4} It is estimated that half of all hospitalized patients with AUD may go on to experience AWS.³ Pharmacologic interventions to mitigate AWS should be initiated sooner rather than later to gain rapid symptom control and prevent morbidity and mortality. Improved symptom control may lead to decreased risk for severe consequences of alcohol withdrawal as well as reduced nursing intervention due to streamlined monitoring. As patients gain better symptom control, they are at less risk for severe consequences of the disease.

Inpatient management of Alcohol Withdrawal Syndrome (AWS) can be difficult due to the variability in patient presentation and symptomology, heterogeneity throughout the patient's course of care, difficulty with concise disease-specific monitoring, and lack of clear preferred treatment. The purpose of this project is to compare the efficacy of two different inpatient withdrawal assessment scales: the Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar) versus the Severity of Ethanol Withdrawal Scale (SEWS). Outcomes include time on medication protocol, symptom management, cumulative dose of medication used, and patient length of stay.

Objectives

Primary objective: To evaluate the average patient time on medication protocol and monitor for resolution of symptoms

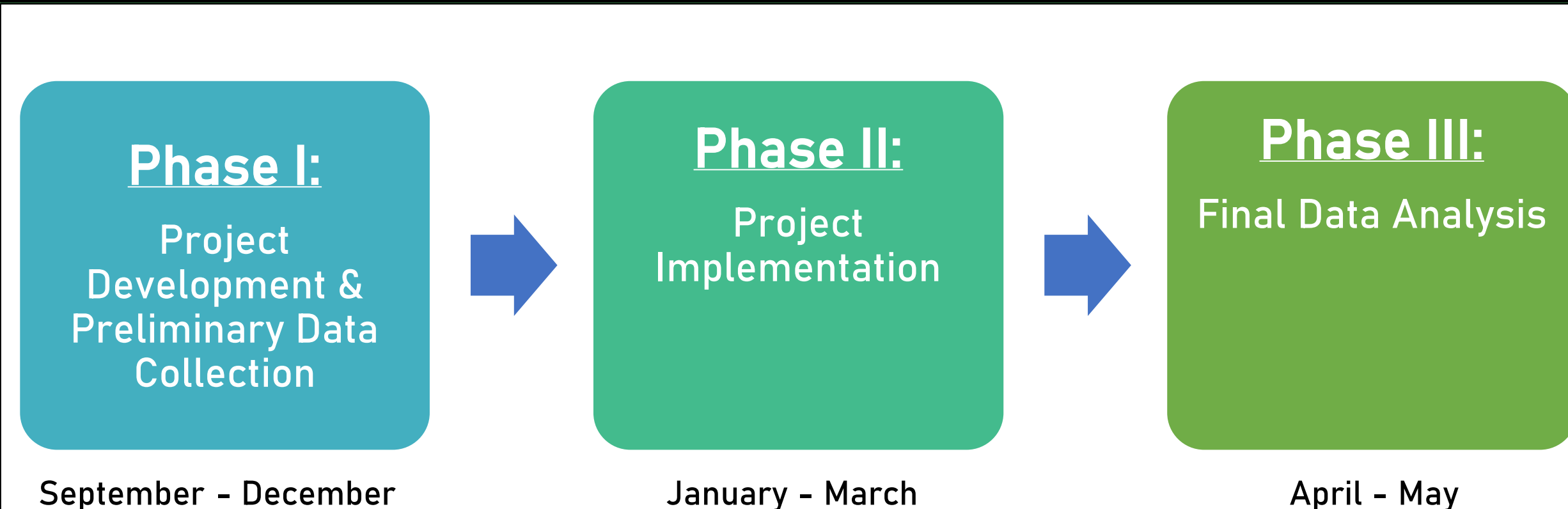
Secondary objectives:

1. Quantify the amount of medication required for each protocol (CIWA vs. SEWS) and observe any need for adjunctive pharmacotherapy
2. Observe patient length of stay and/or transfer rates to higher levels of care
3. Assess symptom control based on patient scale scoring
4. Compare nursing assessment variabilities within each scale

Areas of Impact

1. Patients hospitalized for alcohol withdrawal monitoring
2. Nurses in the ER and all inpatient areas within the Regional Medical Center
3. Providers in the ER and all inpatient providers who manage alcohol withdrawal patients
4. Pharmacists to support with medication selection and management

Methods

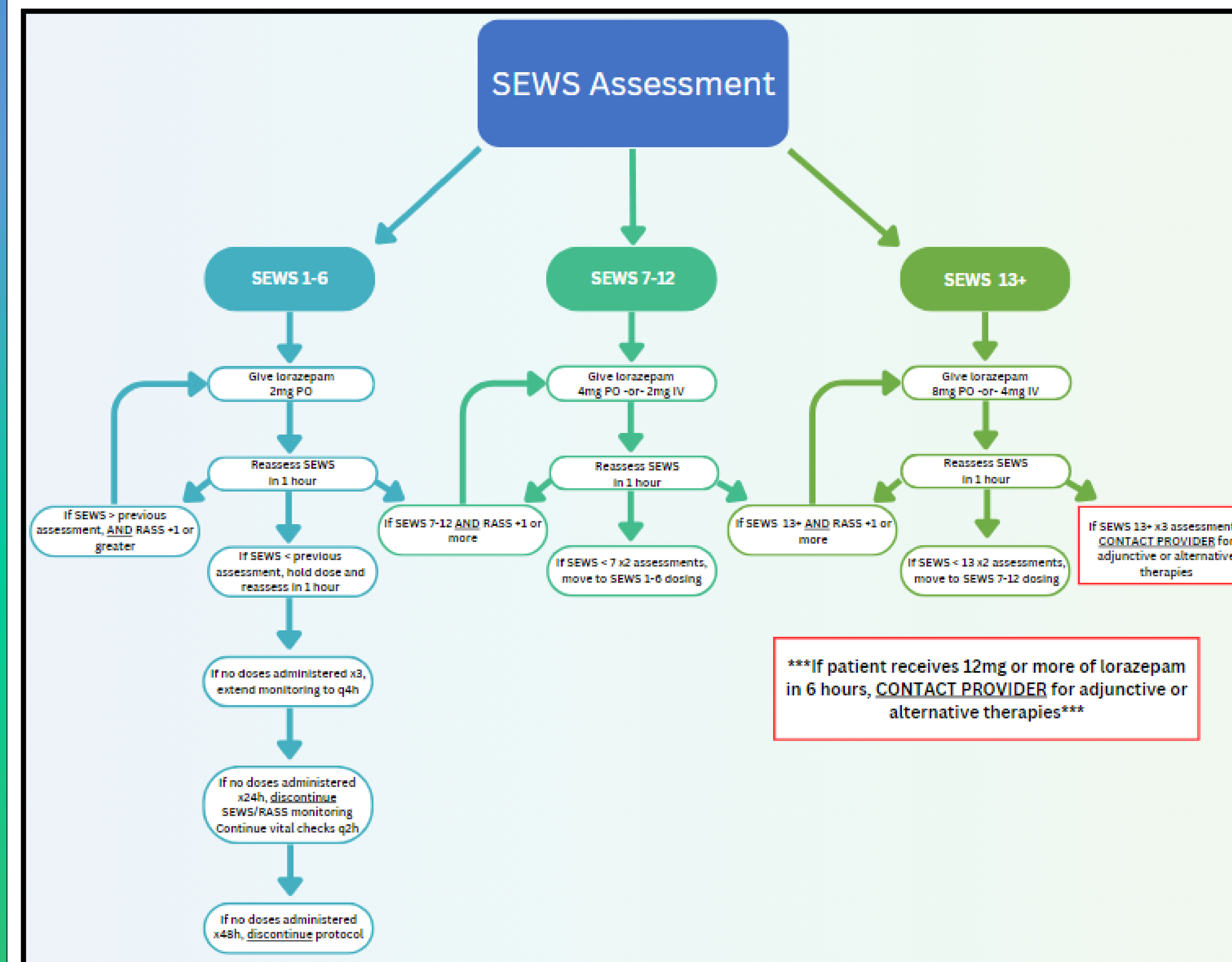


Phase I: Pre-Implementation

Project Development:

- Conduct literature review for background research
- Draft project proposal
- Gain departmental approval for project implementation (introduction and concepts)
- Develop protocol for new SEWS assessments
- Corroborate new, modified order set for SEWS in the electronic medical record
- Provide staff education regarding new SEWS protocol for nursing

Example Lorazepam SEWS Algorithm



Preliminary Data Collection:

- Gather retrospective data for patients on CIWA protocol for the time period of January to March of 2023
- Report for patients with either lorazepam or phenobarbital from January to March (n = 458)

Preliminary Data Results

- Of the 458 patients, 39 (8.5%) charts were confidential and unable to be assessed
- A total of 79 patients were identified as meeting alcohol withdrawal criteria
 - 35 of the 79 patients (44.3%) were seen in the ED and treated but either:
 - Left against medical advice
 - Transferred
 - Discharged before admission on alcohol withdrawal protocol
 - 44 remaining patients (55.7%) were admitted on alcohol withdrawal protocol with data shown at the right

Average time on medication protocol

• 3 days, 17 hours, 30 minutes

Average patient length of stay

• 6.2 days

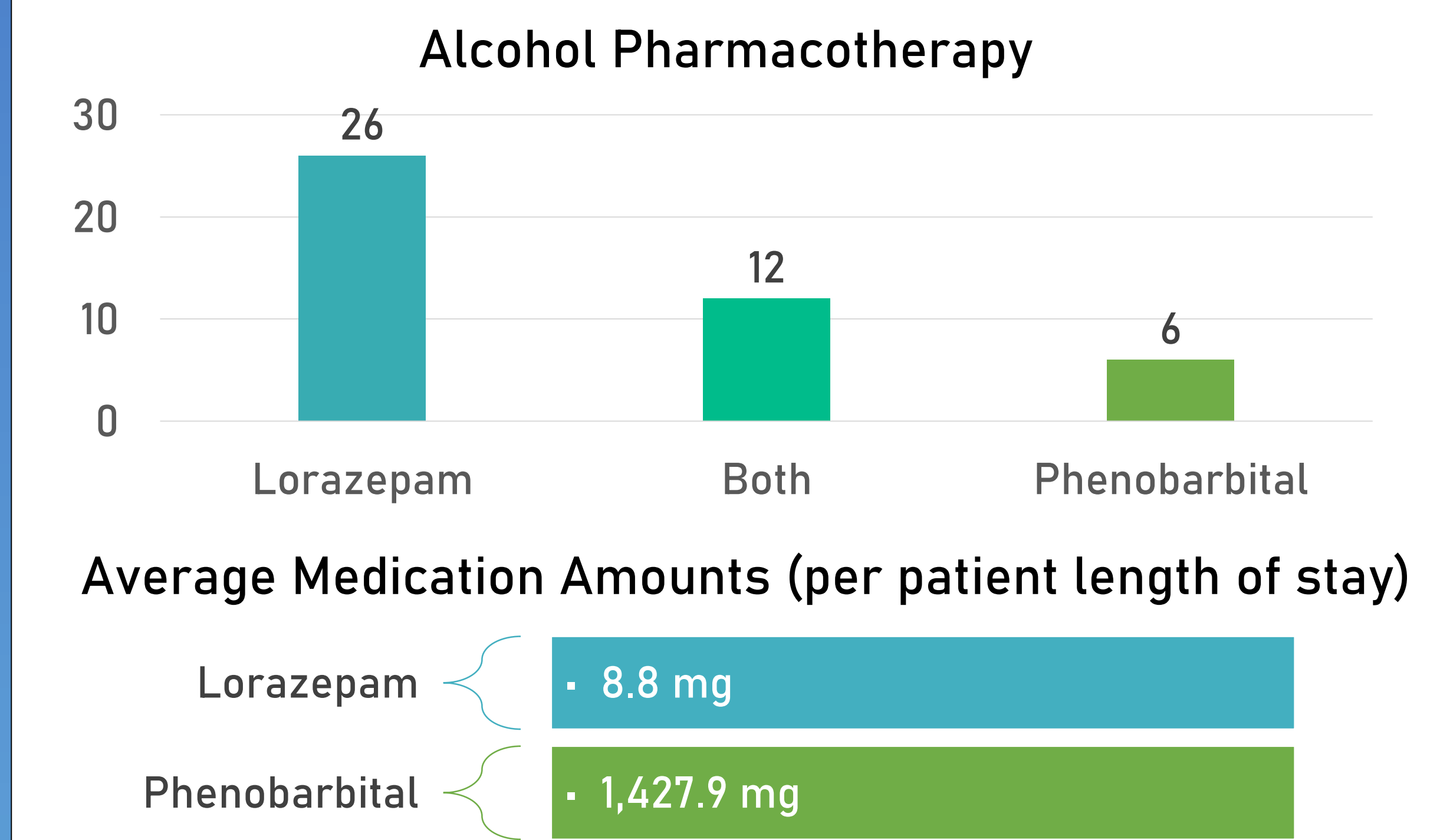
Average CIWA scoring

• 3.4

Patients with adjunctive pharmacotherapy

• n = 23

Data Results Continued



Phase II: Implementation

- CIWA will be replaced with SEWS starting on January 1, 2024
- Patients identified who are at risk of alcohol withdrawal will be initiated on the SEWS protocol
- Pharmacotherapy management of withdrawal symptoms with either lorazepam or phenobarbital based on shared clinical decision making and individual patient risk factors
- Nursing is responsible for completing patient assessments while patients are on SEWS protocol:
 1. Vital checks
 2. Withdrawal assessment with SEWS
 3. Sedation assessment with RASS

Phase III: Post-Implementation

- Prospective data analysis will be collected for the period of January to March of 2024
- Comprehensive data review will juxtapose patients monitored with CIWA from January to March of 2023 to the new prospective data

Discussion

- Based on the published superiority of the SEWS patient assessment scale, implementation and integration of this scale within SPH has the potential to lead to better patient outcomes.
- Retrospective analysis of the past CIWA patients is the controlled variable
- Prospective data analysis with the SEWS scale is the dependent variable
- Data comparison will evaluate outcomes for patient care

References and Disclosures

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:
 Taylor Hopson: Nothing to Disclose, Rachel Moore: Nothing to Disclose, Heidi Simons: Nothing to Disclose, Julie Petre: Nothing to Disclose, Shea Fanning: Nothing to Disclose.

References available at the QR link:

