

MEMO

To: YNHHS Medical Staff
From: YNHHS ICU Committee
Subject: Treatment of Alcohol Withdrawal during Benzodiazepine Shortage
Date: April 20th, 2020

S: There is currently a critical shortage of the intravenous benzodiazepines (lorazepam and midazolam), therefore, there is a need to provide guidance for the treatment of Alcohol Withdrawal Syndrome (AWS).

B: Due to the current surge in critically ill, intubated COVID-19 patients, there is increased use of continuous infusion sedation for mechanically ventilated patients, which has led to short supplies of benzodiazepines. These agents are recommended for the treatment of AWS. Although symptom-triggered approaches are common practice, it does require frequent patient score assessment by the nurse, which may occur as often as every 15 minutes for MINDS. There is a need to limit the number of times it is required to enter COVID-19 positive patient rooms. Fixed-dose benzodiazepines in tapering doses have been found to be effective in the treatment of withdrawal symptoms, seizures, and delirium. Additionally, phenobarbital is a safe and effective alternative drug therapy to benzodiazepines for the treatment of AWS.

A: In the setting of the benzodiazepine shortages, changes are needed to the current AWS protocols to conserve supply of benzodiazepines and to provide guidance to prescribers on the use of fixed-dose benzodiazepine and phenobarbital monotherapy regimens.

R: Please see the following recommendations for the treatment of AWS:

Patient Population	Mild-Moderate AWS	Severe AWS or Intubated
COVID-19 Positive	<ul style="list-style-type: none"> • CIWA symptom-triggered (Refer to “CIWA non-ICU” order set) <ul style="list-style-type: none"> ○ Diazepam PO, diazepam IV, and lorazepam PO ○ For patients at high risk of withdrawal (i.e., history of DTs), may consider fixed-dose benzodiazepine therapy added to symptom-triggered regimen 	<ul style="list-style-type: none"> • Fixed-dose taper, RASS based: <ul style="list-style-type: none"> ○ Diazepam 10 mg IV q6h x 8 doses, followed by 5 mg IV q6h x 8 doses* OR ○ Lorazepam 2 mg IV q6h x 8 doses, followed by 1 mg IV q6h x 8 doses* (for patients with history of decompensated cirrhosis) OR • Phenobarbital monotherapy <p>*See Table 2 for rescue/adjunctive therapies</p>
COVID-19 Negative	<p>OR</p> <ul style="list-style-type: none"> • Phenobarbital monotherapy 	<ul style="list-style-type: none"> • YAWP Protocol (MINDS score-based): <ul style="list-style-type: none"> ○ Diazepam IV will be the preferred agent OR ○ Lorazepam IV (for patients with history of decompensated cirrhosis) order entry will be restricted to pharmacists ○ Midazolam IV will not be available due to shortage OR • Phenobarbital monotherapy

Table 2: *Rescue/Adjunctive Therapies for Severe AWS if Patients have Worsening Symptoms Despite Fixed-Dose Benzodiazepine Therapy

<p>Patients on fixed-dose diazepam</p>	<ul style="list-style-type: none"> • Add diazepam 10 mg IV q30 min PRN RASS \geq +1 • If patient receives \geq3 doses in 2 hours, initiate dexmedetomidine infusion • If patient requires dexmedetomidine infusion at a rate higher than $>$ 0.5 mcg/kg/hr, initiate benzodiazepine infusion
<p>Patients on fixed-dose lorazepam</p>	<ul style="list-style-type: none"> • Add lorazepam 2 mg IV q30 min PRN RASS \geq +1 • If patient receives \geq3 doses in 2 hours, initiate dexmedetomidine infusion • If patient requires dexmedetomidine infusion at a rate higher than $>$ 0.5 mcg/kg/hr, initiate benzodiazepine infusion

Appendix: Endorsements

Committee Name	Committee Members	Month/Day/Year
SIM ICU - COVID		04/16/20