Managing Patients with Alcohol Withdrawal

Clinical Institute Withdrawal Assessment of Alcohol Scale, revised (CIWA-Ar)

Department of Medicine – Regulated Health Professionals

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**Goal/Purpose**

Alcohol dependence exists in 12 to 20% of primary care and hospitalized patients. Abrupt cessation or decline in alcohol intake can trigger a withdrawal syndrome characterized by affective, behavioural, and cognitive changes. These changes range from mild effects (such as anxiety) to severe, even fatal conditions.

The goal of alcohol withdrawal management is to alleviate the symptoms of withdrawal and prevent progression of early symptoms that can lead to more intense and problematic symptoms, such as seizures and Delirium Tremens (DTs.)

HHCC utilizes the Clinical Institute Withdrawal Assessment for Alcohol scale, revised (CIWA-Ar) as the initial and ongoing assessment tool to determine the severity of withdrawal symptoms and to guide pharmacological management.

**Learning Objectives**

After completing this module you will be able to:

- Discuss the stigma associated with substance use disorders
- Describe the progression of alcohol withdrawal
- Identify when and how to use the withdrawal assessment tool (CIWA-Ar)
- Identify pharmacological interventions used to treat alcohol withdrawal syndrome
- Understand and utilize the initial and ongoing assessment of the person experiencing alcohol withdrawal
What are the Signs and Symptoms of Alcohol Withdrawal?
(Lussier-Cushing, et al, 2007)

Early/Mild withdrawal signs and symptoms (approximately 6 hours after last drink)
- Anxiety
- Mild diaphoresis
- Hyper alertness, may startle easily
- Mild itching, vague pins and needles under skin
- Shakes and jitters with movement
- Nausea, anorexia
- Headache

Moderate withdrawal signs and symptoms (approximately 12-48 hours after last drink)
- Tremors at rest
- Diaphoresis, especially face and palms
- Increased anxiety and emotional lability
- Nausea and vomiting
- Clouding orientation
- Increased sensitivity to touch
- Elevated heart rate and/or blood pressure (if unrelated to other known pathology)

Severe withdrawal signs and symptoms – Alcohol Withdrawal Delirium (AWD) commonly known as Delirium Tremens (approximately 48-72 hours after last drink)
- Tachycardia, hypertension, fever
- Total body tremor
- Profuse diaphoresis
- Extreme agitation, paranoia
- Complete disorientation
- Gastric pain, diarrhea
- Continuous hallucinations

Most patients have mild symptoms which are nonspecific: tremor, sweating, anxiety, insomnia and headache. Hyper-reflexia is another presenting symptom that may be assessed. Patients may also identify subjective withdrawal symptoms but not have objective evidence of withdrawal.

Symptoms that may create significant risks in elderly patients or those with comorbidities include:
- Tachycardia
- Hypertension
- Vomiting
- Diarrhea
- Hallucinations
Assessment Parameters

Abrupt reductions or cessation of alcohol intake can result in withdrawal signs and symptoms. For this reason a thorough patient history is important to anticipate and safely assist the patient through the withdrawal process. Screening for alcohol withdrawal takes place during the initial health assessment and may continue up to 7 days.

✓ What is the average number of drinks per day/per week?
✓ Has the patient had a large amount of alcohol over a long period of time?
✓ Has patient experienced previous episodes of alcohol withdrawal?
✓ Does the patient have early morning drinks to alleviate withdrawal symptoms? (a predictor of higher withdrawal symptom severity)
✓ Has there been concomitant use of illicit or prescription drugs? (e.g. Regular or heavy use of substances may have increased withdrawal features)
✓ How severe were previous withdrawal symptoms?
✓ Are there any comorbid medical or psychiatric issues?

CAUTION:

The Alcohol Withdrawal procedure is not initiated if there is:
- Indication of alcohol intoxication or drug overdose

And is used with extreme caution if:
- History of liver disease or elevated liver enzymes
- Presence of jaundice
- Pregnancy (Consult to an Obstetrician)
- Frail elderly
- Severe respiratory depression

Potential Complications of Alcohol Withdrawal

Alcohol Withdrawal Seizures

Seizures are usually single, with 24% of persons who present with an alcohol-related seizure having a second seizure, if not treated. Only 3% of patients have a seizure after administration of appropriate medications.

The risk of alcohol withdrawal seizures increases with:
- History of previous seizures (kindling)
- Multiple episodes of alcohol withdrawal
- Use of benzodiazepines or other sedatives in addition to alcohol
Seizures occur early in the withdrawal process, often in the Emergency Department or community. The peak incidence is at 24 hours, with 90% occurring between 6 and 48 hours after the last drink and can occur while the blood alcohol level is still above zero.

Hypoglycemia

Patients going through alcohol withdrawal have higher metabolic demands due to potential seizure activity, malnutrition and other comorbidities. Blood sugars are often ordered frequently to monitor for potential drop of blood sugar.

Thiamine Deficiency

Chronic alcohol intake interferes with thiamine absorption from the GI tract and hepatic storage. This, combined with poor nutrition, leads 30%-80% of alcohol dependent patients to be thiamine deficient.

Thiamine plays a major role in glucose metabolism. Thus, the major organs affected by thiamine deficiency are those dependent on energy from the metabolism of carbohydrates – peripheral nerves, heart, and brain. Thiamine needs to be administered before glucose solutions because it is a cofactor necessary for glucose metabolism.

Loading carbohydrates in patients with a thiamine deficiency can precipitate acute thiamine deficiency triggering Wernicke’s encephalopathy. Left untreated, this disorder can progress to Korsakoff psychosis, which results in memory deficits.

Alcohol Withdrawal Delirium (Delirium Tremens)

Alcohol withdrawal delirium (AWD), also known as Delirium Tremens or “DTs” occurs in 5-10% of alcohol withdrawal patients and presents, after 2-3 days. Untreated DTs has a mortality rate over 15%, whereas with adequate treatment the mortality rate drops to less than 1%.

Diagnostic Features include:
- Disturbance of consciousness
- Change in cognition or perceptual disturbance developing over a short period
- Other clinical signs include hyperpyrexia, tachycardia, hypertension and diaphoresis

The hallmark feature of AWD is hallucinations, which can occur with or without insight. Patients who have hallucinations with insight recognize that the hallucination isn’t real or may over interpret stimuli, as in “I thought someone was in here”. As AWD progresses, the patient loses insight into the hallucination.
Patients most at risk to experience Delirium Tremens:
- Elderly
- Multiple previous episodes of alcohol withdrawal
- History of previous DTs
- Presenting with seizure
- Blood alcohol level greater than 0.30
- Medically ill or post-operative patients
- Benzodiazepines or other sedatives used in addition

**Maintaining a Therapeutic Relationship with a Person who has a Substance Abuse Illness**

**Be Aware:**
The thorough health assessment which includes the CIWA-Ar requires the establishment of a therapeutic relationship and strong communication. Persons with substance use illnesses frequently experience stigma.

When negative bias and stereotyping is encountered, health outcomes are adversely impacted. Supporting the therapeutic relationship includes clinician self-awareness of negative bias and stereotyping and clinician self-regulation regarding personal issues about substance use.

**Assessing Alcohol Withdrawal Using the CIWA-Ar Scale**

**Where?**
Provide the patient with a quiet room with lights dimmed. Use a slow steady calming approach and provide hydration through oral fluid intake.

**What?**
The CIWA-Ar is used to predict the progression of alcohol withdrawal. Using the tool allows for symptom-triggered treatment of alcohol withdrawal symptoms. Symptom triggered regimes are associated with a decrease in the occurrence of delirium tremens resulting in shorter length of stays and a decrease in the amount of benzodiazepines needed.

It contains a 0-7 numerical scale for 10 categories each assessed through observation and patient interaction:
- Nausea and vomiting
- Tremors
- Paroxysmal sweats
- Anxiety
- Agitation
- Tactile disturbance
- Auditory
- Visual disturbance
- Headaches
- Orientation/clouding of sensorium
**Alcohol withdrawal symptoms can and do escalate during sleep, thus these assessments should not be deferred or omitted.**

**How?**

- Explain simply and clearly the frequency of the CIWA-AR assessments and why they are being done
- Maintain eye contact with the patient while asking questions
- Speak slowly and clearly; re-wording as necessary
- Do not contradict what the patient reports
- Adjust the score as required based on subjective and objective signs and symptoms
- Give positive feedback as much as possible using encouragement and reassuring communication techniques
- Avoid confrontation and arguments
- Use a slow, steady and non-threatening approach to reduce anxiety and build rapport
- Decrease perceptual error by reorienting or distracting the patient
- Assess each question as it appears on the scale
- Assign a score to each question (total of 10 domains)
- Maximum possible score is 67

The CIWA-Ar assessment is based on both the clinician’s observations and the patient’s verbal response. Like any new assessment skill the clinician becomes more proficient with repeated opportunities to perform the assessment.

Refer to the Alcohol Withdrawal Syndrome Management Order Set for appropriate sedation and monitoring. Notify the physician and withhold sedation if the patient experiences:

- Respiratory depression
- Hypotension
- New onset jaundice
- Becomes difficult to arouse
Procedure for completing the CIWA-AR assessment found on next page:

1. Assess and rate each of the 10 criteria of the CIWA scale. Each criterion is rated on a scale from 0 to 7, except for “Orientation and clouding of sensorium” which is rated on scale 0 to 4. Add up the scores for all ten criteria. This is the total CIWA-Ar score for the patient at that time. Prophylactic medication should be started for any patient with a total CIWA-Ar score of 8 or greater (ie. start on withdrawal medication). If started on scheduled medication, additional PRN medication should be given for a total CIWA-Ar score of 15 or greater.


3. The CIWA-Ar scale is the most sensitive tool for assessment of the patient experiencing alcohol withdrawal. Nursing assessment is vitally important. Early intervention for CIWA-Ar score of 8 or greater provides the best means to prevent the progression of withdrawal.
## Alcohol Withdrawal Assessment - Scoring Guidelines (CIWA - Ar)

<table>
<thead>
<tr>
<th><strong>Nausea/Vomiting</strong></th>
<th><strong>Tremors</strong></th>
<th><strong>Agitation</strong></th>
<th><strong>Orientation and clouding of sensorium</strong></th>
<th><strong>Auditory Disturbances</strong></th>
<th><strong>Visual disturbances</strong></th>
<th><strong>Headache</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask: &quot;Do you feel sick to your stomach? Have you vomited?&quot; Observation</td>
<td>Have patient extend arms &amp; spread fingers. Rate on scale 0 - 7.</td>
<td>Observation: 0 - no anxiety, patient at ease</td>
<td>Ask, “What day is this? Where are you? Who am I?” Rate scale 0 - 4</td>
<td>Ask, “Are you more aware of sounds around you? Are they harsh? Do they startle you? Do you hear anything that disturbs you or that you know isn’t there?” 0 - not present</td>
<td>Ask, “Does the light appear to be too bright? Is its color different than normal? Does it hurt your eyes? Are you seeing anything that disturbs you or that you know isn’t there?” 0 - not present</td>
<td>Ask, “Does your head feel different than usual? Does it feel like there is a band around your head?” Do not rate dizziness or lightheadedness.</td>
</tr>
<tr>
<td>0 - None</td>
<td>0 - No tremor</td>
<td>0 - normal activity</td>
<td>0 - Oriented</td>
<td>0 - not present</td>
<td>0 - not present</td>
<td>0 - not present</td>
</tr>
<tr>
<td>1 - Mild nausea with no vomiting</td>
<td>1 - Not visible, but can be felt fingertip to fingertip</td>
<td>1 - somwhat normal activity</td>
<td>1 - is uncertain about date</td>
<td>1 - Very mild harshness or ability to startle</td>
<td>1 - very mild</td>
<td>1 - very mild</td>
</tr>
<tr>
<td>4 - Intermittent nausea</td>
<td>4 - Moderate, with patient’s arms extended</td>
<td>4 - moderately fidgety and restless</td>
<td>2 - disoriented to date by no more than 2 calendar days</td>
<td>2 - mild harshness or ability to startle</td>
<td>2 - mild</td>
<td>2 - mild</td>
</tr>
<tr>
<td>7 - Constant nausea and frequent dry heaves and vomiting</td>
<td>7 - severe, even w/ arms not extended</td>
<td>7 - moderately fidgety and restless</td>
<td>3 - disoriented to date by more than 2 calendar days</td>
<td>3 - moderate harshness or ability to startle</td>
<td>3 - moderate</td>
<td>3 - moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4 - Disoriented to place and / or person</td>
<td>4 - moderately severe hallucinations</td>
<td>4 - moderately severe hallucinations</td>
<td>4 - Severe hallucinations</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>5 - Severe hallucinations</td>
<td>5 - severe</td>
<td>5 - Severe</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6 - Extremely severe hallucinations</td>
<td>6 - extremely severe hallucinations</td>
<td>6 - very severe</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7 - Continuous hallucinations</td>
<td>7 - continuous hallucinations</td>
<td>7 - extremely severe</td>
</tr>
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<td></td>
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</tr>
<tr>
<td><strong>Anxiety</strong></td>
<td><strong>Paroxysmal Sweats</strong></td>
<td><strong>Tactile disturbances</strong></td>
<td><strong>Orientation and clouding of sensorium</strong></td>
<td><strong>Auditory Disturbances</strong></td>
<td><strong>Visual disturbances</strong></td>
<td><strong>Headache</strong></td>
</tr>
<tr>
<td>Ask: “Do you feel nervous?” Observation</td>
<td>Observation: 0 - no sweats</td>
<td>Ask, “Have you experienced any itching, pins &amp; needles sensation, burning or numbness, or a feeling of bugs crawling on or under your skin?”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - no anxiety, patient at ease</td>
<td>1 - barely perceptible sweating, palms moist</td>
<td>0 - none</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - mildly anxious</td>
<td>4 - drenching sweat</td>
<td>1 - very mild itching, pins &amp; needles, burning, or numbness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 - moderately anxious or guarded, so anxiety is inferred</td>
<td></td>
<td>2 - mild itching, pins &amp; needles, burning, or numbness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 - equivalent to acute panic states seen in severe delirium or acute schizophrenic reactions.</td>
<td></td>
<td>3 - moderate itching, pins &amp; needles, burning, or numbness</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>4 - moderate hallucinations</td>
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<td></td>
<td></td>
<td>5 - severe hallucinations</td>
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<td></td>
<td>6 - extremely severe hallucinations</td>
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<tr>
<td></td>
<td></td>
<td>7 - continuous hallucinations</td>
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</tbody>
</table>
CASE SCENARIO #1

Mr. Anderson is a 65 year old male brought into the Emergency department by Ambulance (EMS). He is disoriented x 2, agitated and is experiencing severe tremors.

<table>
<thead>
<tr>
<th>Temp</th>
<th>HR</th>
<th>BP</th>
<th>RR</th>
<th>O₂ sat</th>
<th>Capillary Blood Glucose</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.5°</td>
<td>135 regular</td>
<td>180/92</td>
<td>30</td>
<td>99% on room air</td>
<td>5.7 mmol/L</td>
</tr>
</tbody>
</table>

Mrs. Anderson reports that Mr. Anderson drinks 13 oz hard liquor per day for the past 3 years, however has found empty bottles beside the couch after he passes out which she observed being full in the morning. Mr. Anderson is reported to have abruptly stopped drinking 2 days ago in preparation for their daughter’s wedding.

Mr. Anderson knows his name but cannot recall the location or the date. Mr. A is observed dry heaving and is frequently bringing up vomitus although he does not smell of alcohol. Mr. A is drenched in sweat and is panicking while trying to scratch the bugs off of his skin that he reports are crawling all over him. Mr. Anderson is unable to look into the lights in the Emergency department without looking away and reports having a severe headache. He startles easily and is frequently seen and heard talking and whispering to people who aren’t there.

**Question #1: Based on the above scenario, what do you believe Mr. Anderson is experiencing?**

**Answer:** Mr. Anderson is experiencing severe alcohol withdrawal
Question #2: Based on the scoring in each CIWA category, what is Mr. A’s total CIWA score?

Alcohol Withdrawal Assessment - Scoring Guidelines (CIWA - Ar)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea/Vomiting</td>
<td>“Do you feel sick to your stomach? Have you vomited?” Observation</td>
<td>0 = None, 1 = Mild nausea with no vomiting, 4 = Intermittent nausea, 7 = Constant nausea and frequent dry heaves and vomiting</td>
</tr>
<tr>
<td>Anxiety</td>
<td>“Do you feel nervous?” Observation</td>
<td>0 = no anxiety, patient at ease, 1 = mildly anxious, 4 = moderately anxious or guarded, so anxiety is inferred, 7 = equivalent to acute panic states seen in severe delirium or acute schizophrenic reactions</td>
</tr>
<tr>
<td>Paroxysmal Sweats</td>
<td>Observation</td>
<td>0 = no sweats, 1 = barely perceptible sweating, palms moist, 4 = beads of sweat obvious on forehead, 7 = drenching sweats</td>
</tr>
<tr>
<td>Tactile Disturbances</td>
<td>“Have you experienced any itching, pins &amp; needles sensation, burning or numbness, or a feeling of bugs crawling on or under your skin?”</td>
<td>0 = none, 1 = very mild itching, pins &amp; needles, burning, or numbness, 2 = mild itching, pins &amp; needles, burning, or numbness, 3 = moderate itching, pins &amp; needles, burning, or numbness, 4 = moderate hallucinations, 5 = severe hallucinations, 6 = extremely severe hallucinations, 7 = continuous hallucinations</td>
</tr>
<tr>
<td>Visual Disturbances</td>
<td>“Does the light appear to be too bright? Is its color different than normal? Does it hurt your eyes? Are you seeing anything that disturbs you or that you know isn’t there?”</td>
<td>0 = not present, 1 = very mild sensitivity, 2 = mild sensitivity, 3 = moderate sensitivity, 4 = moderate hallucinations, 5 = severe hallucinations, 6 = extremely severe hallucinations, 7 = continuous hallucinations</td>
</tr>
<tr>
<td>Tremors</td>
<td>Have patient extend arms &amp; spread fingers. Rate on scale 0 - 7.</td>
<td>0 = No tremor, 1 = Not visible, but can be felt fingertip to fingertip, 4 = Moderate, with patient’s arms extended, 7 = severe, even w/ arms not extended</td>
</tr>
<tr>
<td>Agitation</td>
<td>Observation</td>
<td>0 = normal activity, 1 = somewhat normal activity, 4 = moderately fidgety and restless</td>
</tr>
<tr>
<td>Orientation and clouding of sensorium</td>
<td>“What day is this? Where are you? Who am I?” Rate scale 0 - 4</td>
<td>0 = Oriented, 1 = is uncertain about date, 2 = disoriented to date by no more than 2 calendar days, 3 = disoriented to date by more than 2 calendar days, 4 = Disoriented to place and / or person</td>
</tr>
<tr>
<td>Auditory Disturbances</td>
<td>“Are you more aware of sounds around you? Are they harsh? Do they startle you? Do you hear anything that disturbs you or that you know isn’t there?”</td>
<td>0 = not present, 1 = Very mild harshness or ability to startle, 2 = mild harshness or ability to startle, 3 = moderate harshness or ability to startle, 4 = moderate hallucinations, 5 = severe hallucinations, 6 = extremely severe hallucinations, 7 = continuous hallucinations</td>
</tr>
<tr>
<td>Headache</td>
<td>“Does your head feel different than usual? Does it feel like there is a band around your head?” Do not rate dizziness or lightheadedness.</td>
<td>0 = not present, 1 = very mild, 2 = mild, 3 = moderate, 4 = moderately severe, 5 = severe, 6 = very severe, 7 = extremely severe</td>
</tr>
</tbody>
</table>

Answer: Anxiety 7, Nausea 7, Sweats 7, Tactile Disturbances 6, Visual Disturbance 6, Tremors 7, Agitation 4, Orientation 1, Auditory 5, Headache 5.

Therefore his total CIWA score is 55.
Based on the Alcohol Withdrawal Order Set the doctor is notified of the findings. Blood work is ordered as per the order set and since Mr. Anderson is not diabetic, capillary blood glucose levels are ordered q4h until his alcohol withdrawal symptoms subsides.

Mr. Anderson receives an IV bolus of 1 litre of 0.9% NaCl over 1 hour followed by a maintenance IV of 3.3% dextrose + 0.3% NaCl at 125 mLs/hr. Thiamine 100 mg IV stat is given as per the order set. The Emergency physician orders Mr. Anderson diazepam 10 mg po q1h for CIWA score greater than or equal to 10. Mr. Anderson is also given risperidone 0.25 mg po.

**Question #3:** Why did the Emergency physician not order diazepam 20 mg for Mr. A?

**Answer:** Mr. Anderson is 65 years old; he is to receive the geriatric dosing of medication.

Mr. Anderson receives 2 doses of diazepam while in the Emergency department as his CIWA score has not dropped below 40. He’s heard yelling out help and observed having a tonic clonic seizure.

**Question #4:** Based on the alcohol withdrawal order set, what should the nurse do?

**Answer:** Notify the MRP and give diazepam 5-10 mg IV (5 mg per minute) q5 minutes x 3. Implement seizure precautions.

**Question #5:** Could Mr. A be experiencing Delirium Tremens based upon the above scenario?

**Answer:** Yes, diagnostic features of delirium tremens include disturbance of consciousness, change in cognition or perceptual disturbance over a short time, hyperpyrexia, tachycardia, hypertension and diaphoresis.

Mr. Anderson stabilizes enough to be transferred to the ICU for further monitoring. Once his CIWA score falls below 10 on 3 consecutive occasions, the CIWA assessment tool can be discontinued.
CASE SCENARIO #2

Ms. Bubble is a 30 year old, 90 pound female that is brought into the Emergency by police at 0800 hrs. She was brought in by police because she was exhibiting bizarre behaviour outside of Tim Hortons. Ms. Bubble is observed pacing, being overly fidgety and seen occasionally talking to herself. Ms. Bubble is able to state her name and knows she’s in the hospital. She does appear mildly anxious and suspicious of the questions she is being asked.

Ms. Bubble reports feeling mildly nauseated and has a mild headache. She appears pale and her breath smells of alcohol. She reports some abdominal pain. Blood work and an abdominal xray are ordered.

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
<th>Normal Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hbg</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>K⁺</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Na</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td>Albumin</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>LFTs</td>
<td>Within normal limits</td>
<td></td>
</tr>
<tr>
<td>BHCG</td>
<td>1470</td>
<td></td>
</tr>
<tr>
<td>Ethanol</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>Toxicology Screen</td>
<td>Trace amounts for cocaine, marijuana</td>
<td></td>
</tr>
</tbody>
</table>

Question #1: What is Ms. Bubble’s CIWA score?
Answer: 9

Question #2: Based on her blood work results, which part of the Alcohol Withdrawal Order Set should be implemented first?
Answer: Do not implement the alcohol withdrawal order set. Since Ms. Bubble’s toxicology screen came back positive for cocaine and marijuana, this is likely the cause of her behaviour. Ms. Bubble’s blood alcohol level is also elevated. The alcohol withdrawal order set is not initiated if there is an indication of alcohol intoxication or drug overdose. Ms. Bubble’s BHCG indicates she is pregnant and therefore even if she was experiencing mild alcohol withdrawal, the alcohol withdrawal order set should be used with extreme caution, if at all.

Ms. Bubble is monitored in the Emergency department and is frequently awakened to make sure her CIWA score does not increase. Her CIWA score is less than 10 on 3 consecutive occasions so the CIWA assessment tool is discontinued. Ms. B has an ultrasound which shows an embryo reflective of her BHCG levels. Ms. Bubble is given counseling and sees social work prior to being discharged and is planning on going to rehab prior to her baby being born. Children’s Aid Services are notified to monitor Ms. B and her child after the birth.
CASE SCENARIO #3

Mr. Clementine is a 70 year old male that has been admitted on the medical unit for just over 18 hours. Mr. Clementine was admitted with mild CHF after having an MI 2 months ago. Despite his cardiac issues and history, his blood pressure and heart rate have been surprisingly good.

Mr. Clementine is a diabetic and his Capillary Blood Glucose reading before supper is 7.2. The nurses are going around checking meal trays and Mr. Clementine asks one of the nurses why the hotel is serving such lousy meals. The nurse reminds Mr. Clementine he is in the hospital. Mr. Clementine looks confused but then nods his head, “oh yeah, that’s right. What’s wrong with my head?”

Mr. Clementine is later observed pacing around the nursing station and stops to talk to the nurses. He is answering some of the questions he is asked inappropriately. Despite just standing at the nursing station for 10 minutes, Mr. Clementine’s telemetry alarms and he is in sinus tachycardia at a rate of 120 beats per minute. He denies any chest pain or shortness of breath. The nurse takes him back to his room and performs an ECG which shows no new changes. His last set of cardiac enzymes performed 1 hour ago are negative.

<table>
<thead>
<tr>
<th>Temp</th>
<th>HR</th>
<th>BP</th>
<th>RR</th>
<th>O₂ sat</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.5</td>
<td>115</td>
<td>156/98</td>
<td>20</td>
<td>99% on room air</td>
</tr>
</tbody>
</table>

His vital signs are taken and his blood pressure is 156/98 despite him having normal blood pressure readings his whole admission. Mr. Clementine’s chest is clear but the nurse notices that his palms are moist when she’s checking his pulse and CSM. Mr. Clementine reports mild itching of his palms and is experiencing pins and needles in his fingers. He asks the nurse to turn down the lights because he has a headache which he rates 5/10 on the pain scale. Mr. Clementine also complains to the nurse that since it is midnight, why is it so light in here? The nurse notes and reminds Mr. C that it is 1400hrs. He denies any auditory disturbances. The nurse reviews Mr. Clementine’s history and he has no history of dementia or any other psychiatric disorders. A urinalysis was completed on admission which was negative. Mr. Clementine asks the nurse what he needs to do to get a drink around here. The nurse brings Mr. Clementine back a glass of water, but Mr. C reported he wanted a beer. He reports he normally has 4-7 beer per day which was not reported on admission. Mr. Clementine is noted to have a slight tremor when first holding his glass of water.

**Question #1: Based on the above scenario, what is Mr. C’s CIWA score?**

**Answer:** Mr. C’s CIWA score is 15 so the MRP is paged and the alcohol withdrawal order set is implemented

The nurse reviews the Alcohol Withdrawal Order Set. Since Mr. Clementine is a known diabetic, he already has capillary blood glucose monitoring orders in place. Mr. Clementine is already on a cardiac order set so the nurse enters the blood work that is remaining on the alcohol withdrawal order set.

He receives 1 dose of diazepam 10 mg po as his CIWA score is greater than 10. Mr. Clementine also receives thiamine 100 mg po and is ordered the same thiamine dosing x 3 days. The nurse notes that Mr. C is ordered imovane at hs so she discontinues the imovane as per the alcohol withdrawal order set. Mr. Clementine’s LFTs come back elevated and his albumin is low. The MRP changes Mr. Clementine’s diazepam to lorazepam.
Question #2: Why did the MRP change Mr. C from diazepam to lorazepam?
Answer: diazepam is not recommended for elderly patients, patients with significant liver dysfunction and/or low serum albumin levels.

Question #3: Is Mr. Clementine at risk for DTs (delirium tremens) at this point?
Answer: No. Patients most at risk for DTs are patients with multiple previous episodes of alcohol withdrawal, history of previous DTs, presenting with seizure, blood alcohol level greater than 0.30. The only thing that puts Mr. Clementine at risk is the fact that he is elderly and medically ill.

Mr. Clementine falls asleep after his dose of diazepam and the patients’ nurse is planning to let him sleep.

Question #4: Why is the nurse wrong to let Mr. Clementine sleep and not reassess his CIWA score?
Answer: Alcohol withdrawal symptoms can and do escalate during sleep and reassessment shouldn’t be omitted.

Mr. Clementine has an additional dose of lorazepam and seems to be clearing. After his CIWA score is less than 10 on 3 consecutive occasions, Mr. Clementine’s alcohol withdrawal order set is discontinued.

Documentation

Please review Appendix A for documentation related to the CIWA Withdrawal Assessment intervention

References:


“What are the signs and symptoms of alcohol withdrawal?” Lussier-Cushing et al, 2007
# Appendix A

## Alcohol Withdrawal Assessment

<table>
<thead>
<tr>
<th>Alcohol Withdrawal Assessment</th>
<th>None</th>
<th>Mild Nausea/No Vomiting</th>
<th>Intermittent Nausea</th>
<th>Freq. Nausea/Heaves/Vomit</th>
<th>No Tremor</th>
<th>None Visible, but Felt</th>
<th>Moderate, Arms Extended</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tremors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety Level</td>
<td>None, At Ease</td>
<td>Mild</td>
<td>Moderate</td>
<td>Severe/Panic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agitation</td>
<td>Normal Activity</td>
<td>Somewhat Normal Activity</td>
<td>Disoriented</td>
<td></td>
<td></td>
<td></td>
<td>Pain/Writhing About</td>
<td></td>
</tr>
<tr>
<td>Orientation and Clouding of Sensum</td>
<td>Oriented</td>
<td>Can't Do Serial Additions</td>
<td>Disoriented Date By 2 D/c</td>
<td>Disoriented Date By &gt; 2 D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paroxysmal Sweats</td>
<td>No Sweats</td>
<td>Minimal - Palma Moist</td>
<td>Drenching Sweats</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tactile Disturbance</td>
<td>None</td>
<td>Very Mild Itch/Numb/Burn</td>
<td>Mild Itch/Numb/Burn</td>
<td>Moderate Itch/Numb/Burn</td>
<td></td>
<td></td>
<td>Very Severe Hallucinations</td>
<td>Continuous Hallucinations</td>
</tr>
<tr>
<td>Auditory Disturbance</td>
<td>Not Present</td>
<td>Very Mild</td>
<td>Mild Harshness/Frighten</td>
<td>Moderate Hallucinations</td>
<td></td>
<td></td>
<td>Very Severe Hallucinations</td>
<td>Continuous Hallucinations</td>
</tr>
<tr>
<td>Visual Disturbance</td>
<td>Not Present</td>
<td>Very Mild Sensitivity</td>
<td>Mild Sensivity</td>
<td>Moderate Sensitivity</td>
<td></td>
<td></td>
<td>Very Severe Hallucinations</td>
<td>Continuous Hallucinations</td>
</tr>
<tr>
<td>Headache</td>
<td>Not Present</td>
<td>Very Mild</td>
<td>Mild</td>
<td>Moderate</td>
<td></td>
<td></td>
<td>Very Severe</td>
<td>Extremely Severe</td>
</tr>
</tbody>
</table>

### Total Score

#### Alcohol Withdrawal Total Score

Score Severity is as follows:
- 0-4: Absent or Minimal Withdrawal
- 5-9: Mild to Moderate Withdrawal
- 10-19: Moderate to Severe Withdrawal
- Greater than 20: Severe Withdrawal