OBJECTIVES

• Discuss the pathophysiology of alcohol withdrawal syndrome (AWS)
• Develop an approach to treating AWS, guided by the revised CIWA scale
• Review challenges of AWS management and the limitations of the CIWA Scale
FACULTY/PRESENTER DISCLOSURE

• Faculty: Sam Campbell

• Relationships with financial sponsors:
  • Grants/Research Support: Penthrox
  • Speakers Bureau/Honoraria: Nil
  • Consulting Fees: Nil
  • Patents: Nil
  • Other: Employee of PraxES Emergency Specialists Inc
DISCLOSURE OF FINANCIAL SUPPORT

• Potential for conflict(s) of interest:
  • None
MITIGATING POTENTIAL BIAS (NON-FINANCIAL DISCLOSURE)

- ‘Alcoholism’ is far, far bigger than ‘withdrawal’
  - I’m only talking about withdrawal
- I have always thought I knew more about how to do this than I discovered
- The guidelines and cutoffs vary as do the drug recommendations
  - I tried to make sense in the NS context
- I am going to suggest the impossible
  - But it gives us direction
  - In our context the impossible is frequently ‘considered’ standard of care!
CASES:

- 78 year old man recovering from an urgent hip hemi-arthroplasty develops tachycardia, hypertension, fever, and agitation.
- 42 year old homeless man presents after a witnessed grand mal seizure – tremulous and tachycardic
- 52 yr old woman dragged in by her daughter who says ‘you have to fix her drinking’ Vitals are normal, ETOH 83
- 45 yr old man presents from cells, where he was unable to stand. He has had fecal and urinary incontinence and manages only to tell you to ____-off.
- 27 year old falls off his bicycle whilst hammered. His (inebriated) friends joke that this is his normal Friday night state
• 44 year old man presents as ‘Suicidal’ – alcoholic x 20 yrs, lost job, family, house, several DUI’s

• 55 yr old lady – Alcoholic for ‘years’ husband has cut her off, she is shaky and anxious. Asking for ativan.

• 60 year old in a rollover MVC, obviously intoxicated, rib fractures, but stable. Several trips to detox in past few years
TERMINOLOGY

• Withdrawal

• Characteristic group of signs & symptoms that typically develop after rapid, marked decrease or discontinuation of a substance of dependence, which may or may not be clinically significantly or life threatening.

ALCOHOL WITHDRAWAL SYMPTOMS
Mild to moderate psychological symptoms

- Feeling Of Jumpiness Or Nervousness
- Anxiety
- Irritability Or Easily Excited
- Emotional Volatility, Rapid Emotional Changes
- Feeling Of Shakiness
- Fatigue
- Depression
ETOH WITHDRAWAL: DIAGNOSTIC CRITERIA

• Cessation of (or reduction in) EtOH use that has been heavy & prolonged

• Two (or more) of the following, developing within several hours to a few days later:
  • Autonomic hyperactivity (sweating, tachycardia)
  • Increased hand tremor
  • Insomnia
  • Nausea or vomiting
  • Transient visual, tactile, or auditory hallucinations
  • Psychomotor agitation
  • Anxiety
  • Grand mal seizures

• Symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning

• Symptoms are not due to a general medical condition or another mental disorder
PATHOPHYSIOLOGY OF ETOH WITHDRAWAL

• GABA (Gama amino butyric acid)
  • Major inhibitory neurotransmitter
  • Chronic EtOH exposure \(\rightarrow\) enhances GABA effects \(\rightarrow\) decrease in GABA \(\alpha_1\) receptor activity

• NMDA (N-methyl-D-aspartate)
  • Major excitatory neurotransmitter
  • Chronic EtOH exposure \(\rightarrow\) inhibits NMDA receptors \(\rightarrow\) increase in NMDA receptor concentration \(\rightarrow\) neuron hyperexcitability

GABA receptor is the brake
NMDA receptor is the accelerator
EtOH Withdrawal is the brain accelerating without brakes...
FACTORS AFFECTING COURSE OF WITHDRAWAL

Severity & duration of withdrawal depend on:

1. Nature of substance
2. Half-life & duration of action
3. Length of time substance used
4. Amount used
5. Use of other substances
6. Presence of other medical & psychiatric conditions
7. Individual biopsychosocial variables
RISK OF WITHDRAWAL

• The severity of withdrawal is partially dose-related. Alcohol withdrawal requiring treatment is rare in people consuming fewer than six drinks per day, (except in older adults)

• Withdrawal severity varies widely. Some people who drink very heavily experience few or no symptoms of withdrawal, whereas others experience severe symptoms.
RISK OF WITHDRAWAL

• Elderly patients:
  • may develop significant withdrawal symptoms even if they were consuming < 6 drinks per day
  • have a more complicated withdrawal course because they often have concurrent health problems and may be frail

• Past withdrawal predicts future episodes. Patients with a history of delirium tremens and withdrawal seizures are at high risk of reoccurrence if they return to drinking and stop again
  • Kindling phenomenon
## COURSE OF ETOH WITHDRAWAL

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Onset after last drink</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tremulousness</td>
<td>6 – 36 hours</td>
</tr>
<tr>
<td>Hallucinations</td>
<td>12 – 48 hours</td>
</tr>
<tr>
<td>Seizures</td>
<td>6 – 48 hours</td>
</tr>
<tr>
<td>Delirium Tremens</td>
<td>48 - 96 hours</td>
</tr>
</tbody>
</table>

Symptoms peak at two to three days, although they can last up to seven days.
SYMPTOMS AND SIGNS

• The most reliable sign of alcohol withdrawal is postural and intention tremor. Ask patients to hold their hands out in front of them, to reach for an object or to walk across the room. The tremor may not be visible when the patient is at rest.

• Other signs include diaphoresis, tachycardia and hypertension. Anxiety, nausea and headache are common symptoms.
DISTINGUISHING BETWEEN WITHDRAWAL AND ANXIETY

- Withdrawal should be suspected if:
  - the patient reports having $\geq 6$ drinks per day (except older adults)
  - drinking begins at a predictable time in the morning or afternoon
  - symptoms include sweating or tremor
  - symptoms are quickly relieved by alcohol
  - Hx of withdrawal in the past, or withdrawal seizures.

A tongue tremor is difficult to feign and is a more sensitive sign of alcoholic tremor than hand tremor
HALUCINATIONS

- Occurs within 12 – 48 hours of last drink
- 3 – 10% of cases develop hallucinations
- Duration is variable
- Usually visual (e.g., pink elephants)
- Occasionally auditory, tactile, or olfactory
- EtOH Hallucinosis: reality testing is intact
SEIZURES

• Occur within 6 – 48 hours of last drink
• 11-35% of patients develop seizures in hospital setting
• Risk correlates with duration EtOH use
• Manifests as grand mal tonic-clonic activity
• Always consider other causes
• 40% are single episodes
• 30% of untreated patients go on to develop delirium tremens
SEIZURES

- EtOH is an independent, dose related risk factor for seizures
- Retrospective study of 308 patients in a city hospital with new onset of seizures during EtOH withdrawal

- EtOH (gm/day) Risk
  - 51 – 100  3x
  - 101 – 200  8x
  - 201 – 300  20x

- 10 gm = 1 beer

DELIRIUM TREMENS

• Begins 3 to 5 days after last drink
• Occurs in less than 5% of withdrawal patients
• Not always predictable or preventable
• Usually lasts 2-3 days, but can last up to 30 days
• Delirium can occur with/without “tremens”
• Risk factors
  • Acute concurrent medical illness
  • History of seizures or delirium tremens
  • Heavier & longer EtOH history
  • Age > 60
  • Elevated BAL on admission (greater than 300 mg/dl)
DIAGNOSING DELIRIUM TREMENS

• The most severe form of alcohol withdrawal manifested by altered mental status and autonomic hyperactivity which can progress to cardiovascular collapse

• Signs and Symptoms: (in addition to those of basic alcohol withdrawal)
  • Hypertension
  • Tachycardia
  • Hyperthermia
  • Severe Agitation
  • Diaphoresis
WITHDRAWAL SYMPTOMS TIMELINE

- Anxiety, insomnia, tremor (mild syndrome)
- Seizures
- Visual hallucinations
- Delirium tremens

Days since alcohol discontinuation

LABORATORY FINDINGS IN PATIENTS WITH ALCOHOL WITHDRAWAL

• In mild cases of withdrawal, blood work is rarely helpful and is unlikely to change management.
  • However, in patients with severe alcohol withdrawal, especially patients with delirium tremens, blood work can help rule out other causes of delirium, screen for alcoholic ketoacidosis and electrolyte abnormalities.

• Ethanol Level is rarely helpful and is unlikely to change management
  • Except if diagnosis is uncertain

• Consider a baseline ECG in patients who require admission for alcohol withdrawal.

• A urine drug screen rarely changes management
TREATMENT OBJECTIVES

• Reduce symptoms
• Prevent seizures
• Prevent delirium tremens
• Prevent &/or manage medical complications & co-morbidities
  • Prevent recurrence
TREATMENT OBJECTIVES

1. provide a safe withdrawal from the drug(s) of dependence and enable the patient to become drug-free”

2. provide a withdrawal that is humane and thus protects the patient’s dignity

3. prepare the patient for ongoing treatment of his or her dependence on alcohol or other drugs

The American Society of Addiction Medicine
SUPPORTIVE CARE

• Ensure ABCs!...
• Secure patient in safe environment
  • Be nice!
• Provide IV hydration as needed
• Correct electrolyte imbalances
• Provide nutritional support

No-one grows up wanting to be an alcoholic!
SUPPORTIVE CARE

• Nursing care: reassurance, orientation, empathetic communication

• Monitor for signs & symptoms of withdrawal

• Consider psych referral to Psychiatry if suicidal/ homicidal ideation &/or psychotic symptoms
ROLE OF PHARMACOTHERAPY

• Stabilize psychological or physiological withdrawal symptoms
  • Control autonomic overdrive

• Manage medical emergencies

• Remediate non-life threatening, relapse-triggering symptoms

• Stabilize co-morbid conditions
• Ideal for management of EtOH withdrawal symptoms
  • Cross-tolerance with EtOH
  • Fairly wide therapeutic window (compared to barbiturates)
• Short- vs. long-acting
• Liver disease may limit use of long acting benzos
BENZODIAZEPINES
LONG-ACTING

• Diazepam or Chlordiazepoxide

• Advantages
  • withdrawal is smoother, rebound withdrawal symptoms are less likely
  • more effective in preventing complications such as seizures

• Disadvantages
  • Not reliable IM
  • Excreted hepatically
BENZODIAZEPINES
SHORT-ACTING

• Lorazepam

• Advantages
  • PO, IM or IV
  • no significant active metabolites
  • They are metabolized & excreted principally through kidneys (& do not jeopardize already-damaged liver)

• Disadvantages
  • They need to be administered more frequently
  • Have the potential for withdrawal syndrome themselves
Symptom-triggered regimen

- Administer the CIWA-Ar every hour to assess the patient’s need for medication.

- Administer one of the following medications every hour when the CIWA-Ar score > 8 to 10 points:
  - Chlordiazepoxide (Librium), 50 to 100 mg
  - Diazepam (Valium), 10 to 20 mg
  - Lorazepam (Ativan), 2 to 4 mg
<table>
<thead>
<tr>
<th>CIWA Score</th>
<th>Severity</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 10</td>
<td>Mild</td>
<td>No treatment</td>
</tr>
<tr>
<td>10-20</td>
<td>Moderate</td>
<td>Diazepam 5-10 mg po and assess response</td>
</tr>
<tr>
<td>&gt; 20</td>
<td>Severe</td>
<td>Diazepam 10-20 mg IV and assess response</td>
</tr>
</tbody>
</table>
SEVERE WITHDRAWAL

- first dose of diazepam 10mg IV, and repeat in 5 minutes PRN. Then double the dose to 20 mg and continue with 20mg, 30mg, 30mg, 40mg, 40mg every 5 minutes as needed.

https://emergencymedicinecases.com/alcohol-withdrawal-delirium-tremens/
OTHER MEDICATIONS

• **Beta-blockers & Clonidine**
  • Reduce autonomic hyper-arousal (tachycardia, hypertension)
  • May reduce total dosage of benzos & result in less sedation
  • Do not reduce risk of seizures or delirium tremens
• **Carbamazepine**
  
  • Reduces risk of seizure activity
  • Does little for autonomic hyper-arousal
  • Requires monitoring of CBC, LFTs, & serum levels
  • Risks include liver & bone marrow toxicity
• **Antipsychotic agents**
  • Not a strong role in AWS
  • Can be used for management of agitation, aggression, & psychotic symptoms
  • Can also lower seizure threshold and prolong the QT
THIAMINE & MULTIVITAMINS

• 30-80% of patients are deficient
• Thiamine does not reduce risk of seizures or delirium tremens
• Thiamine does reduce risk of Wernicke’s encephalopathy
• Give thiamine 50 – 100 mg IV (before glucose)
• Add MV 1 tab po qd
CLINICAL INSTITUTE WITHDRAWAL ASSESSMENT FOR ALCOHOL, CIWA-AR (REVISED VERSION),

• 10 item scale, each item scored independently
• Summation of the scores yields an aggregate value that correlates to the severity of alcohol withdrawal, to guide management
  • The maximum score is 67
  • Mild withdrawal \( \leq 15 \) (start Rx at 8-10)
  • Moderate :16 – 20
  • Severe >20.
Can be administered in under 2 minutes

Care guided by the CIWA has been shown to:

- Have high inter-rater reliability providing an efficient and objective means of assessing alcohol withdrawal
- Decrease treatment duration and total use of benzodiazepines.
- Decrease over-sedation and under-treatment
USING THE CIWA-AR WITHDRAWAL SCALE

• A score of 8-10 or more indicates the need for benzodiazepines

• Benzos stopped when the patient scores less than 8 on two consecutive readings at least one hour apart.
CLINICAL INSTITUTE WITHDRAWAL ASSESSMENT FOR ALCOHOL SCALE

- Nausea & vomiting
- Tremor
- Sweating
- Anxiety
- Agitation

- Tactile disturbances
- Auditory disturbances
- Visual disturbances
- Headache or head fullness
- Disorientation
CIWA - AR IS NOT A DIAGNOSTIC TEST FOR WITHDRAWAL.

• The CIWA-Ar is only intended to be used for assessment of withdrawal severity once the diagnosis has been made.
ROUTINE VS. SYMPTOM-DRIVEN PROTOCOLS

- **Study**: 100 VA patients in EtOH withdrawal
- **Outcomes**
  - Treatment time = 68 hrs vs. 9 hrs.
  - Total dose Chlordiazepoxide = 425 mg vs. 100 mg
- **Advantages**
  - Reduced hospital length of stay
  - Reduced total dosage of medication
  - Reduced cost of care
  - Less sedation
• Total **CIWA-Ar score** <15-18 symptom driven regimen
• **15-19 or higher - scheduled** medication regimen + PRN for breakthrough; reassessment every hour for at least 8 hours until score is < 8 for 2 hours

• **Consider transfer to ICU if score > 35**
- **Fixed-schedule regimen**

  - Administer one of the following medications every 6 hours:
    - Chlordiazepoxide, four doses of 50 mg, then eight doses of 25 mg
    - Diazepam, four doses of 10 mg, then eight doses of 5 mg
    - Lorazepam, four doses of 2 mg, then eight doses of 1 mg

  - Provide additional medication as needed when symptoms are not controlled (i.e., the CIWA-Ar score remains > 8 to 10 points).
| CIWA-AR | 
|-----------------|-----------------|
| **Patient**    | **Date**        | **Time**       | **Blood Pressure** |
| **Date**        | **m** | **d** | **Time** | **(24 hour clock, midnight = 00:00)** |
| **Pulse or heart rate, taken for one minute** | **CIWA & VOMITING** | **TACTILE DISTURBANCES** | **AUDITORY DISTURBANCES** | **VISUAL DISTURBANCES** |
| **MASSAGE AND VOMITING** | **Ask: “Do you feel sick to your stomach? Have you vomited?” Observation.** | **Ask: “Have you any itching, pins and needles sensations, any burning, any nausea or do you feel like you would vomit?” Observation.** | **Ask: “Are you aware of sounds around you? Are they harsh? Do they frighten you? Are you aware of anything you hear? You are hearing things you have not heard?” Observation.** | **Ask: “Does the light appear to be too bright? Is its color different? Do you have to close your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you have not seen before?” Observation.** |
| **No nausea and no vomiting** | **None** | **None** | **None** | **None** |
| **1 mild nausea with no vomiting** | **1 very mild itching, pins and needles, burning or numbness** | **1 very mild itching, pins and needles, burning or numbness** | **1 very mild harshness or ability to frighten** | **1 very mild harshness or ability to frighten** |
| **2 nausea** | **2 mild itching, pins and needles, burning or numbness** | **2 mild itching, pins and needles, burning or numbness** | **2 mild harshness or ability to frighten** | **2 mild harshness or ability to frighten** |
| **3 nausea** | **3 moderate itching, pins and needles, burning or numbness** | **3 moderate itching, pins and needles, burning or numbness** | **3 moderate harshness or ability to frighten** | **3 moderate harshness or ability to frighten** |
| **4 nausea** | **4 severe itching, pins and needles, burning or numbness** | **4 severe itching, pins and needles, burning or numbness** | **4 moderately severe hallucinations** | **4 severely hallucinations** |
| **5 nausea** | **5 very severe itching, pins and needles, burning or numbness** | **5 very severe itching, pins and needles, burning or numbness** | **5 extreme severe hallucinations** | **5 extreme severe hallucinations** |
| **6 nausea** | **6 extremely severe itching, pins and needles, burning or numbness** | **6 extremely severe itching, pins and needles, burning or numbness** | **6 continuous hallucinations** | **6 continuous hallucinations** |
| **7 constant nausea, frequent dry heaves and vomiting** | **7 continuous hallucinations** | **7 continuous hallucinations** | **7 continuous hallucinations** | **7 continuous hallucinations** |
| **TREMOR—Arms extended and fingers spread apart. Observation.** | **PAHYSMAL SWEATS—Observation.** | **ANXIETY—Ask: “Do you feel nervous?” Observation.** | **HEADACHE, FULLNESS IN HEAD—Ask: “Do your head feel different? Does it feel like there is a band around your head?” Do not rate for dizziness or light-headedness. Otherwise, rate severity.** | **ORIENTATION AND CLOUING OF SENSORIUM—Ask: “What day is this? Where are you? Who am I?”** |
| **No tremor** | **No sweat visible** | **0 no anxiety, at ease** | **0 not present** | **0 oriented and can do serial additions** |
| **1 visible, but can be felt fingertip to fingertip** | **1 barely perceptible sweating, palms moist** | **1 mildly anxious** | **1 very mild** | **1 cannot do serial additions or is uncertain about date** |
| **2 visible, moderate with patient’s arms extended** | **2 moderate anxiety, or guarded, so anxiety is inferred** | **2 moderately anxious** | **2 mild** | **2 documented for date by no more than 3 calendar days** |
| **5 severe, even with arms not extended** | **5 equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions** | **3 severely anxious, or guarded, so anxiety is inferred** | **3 moderate** | **3 documented for date by more than 3 calendar days** |
| **PAROXYSMAL SWEATS—Observation.** | **4 extremely severe hallucinations** | **4 extremely severe hallucinations** | **4 moderately severe hallucinations** | **4 documented for date and/or person** |
| **No sweat visible** | **5 continuous hallucinations** | **5 continuous hallucinations** | **5 moderate hallucinations** | **5 documented for date and/or person** |
| **1 barely perceptible sweating, palms moist** | **6 continuous hallucinations** | **6 continuous hallucinations** | **6 severe hallucinations** | **6 continuous hallucinations** |
| **2 moderate anxiety, or guarded, so anxiety is inferred** | **7 continuous hallucinations** | **7 continuous hallucinations** | **7 continuous hallucinations** | **7 continuous hallucinations** |
| **3 equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions** | **7 continuous hallucinations** | **7 continuous hallucinations** | **7 continuous hallucinations** | **7 continuous hallucinations** |
| **AGITATION—Observation.** | **HEADACHE, FULLNESS IN HEAD—Ask: “Does your head feel different? Does it feel like there is a band around your head?” Do not rate for dizziness or light-headedness. Otherwise, rate severity.** | **ORIENTATION AND CLOUING OF SENSORIUM—Ask: “What day is this? Where are you? Who am I?”** | **0 oriented and can do serial additions** | **0 cannot do serial additions or is uncertain about date** |
| **Normal activity** | **0 not present** | **0 oriented and can do serial additions** | **1 very mild** | **1 cannot do serial additions or is uncertain about date** |
| **Slightly more than normal activity** | **1 mildly** | **1 moderate** | **2 mild** | **2 documented for date by no more than 3 calendar days** |
| **Somewhat less than normal activity** | **2 moderately** | **2 moderately severe** | **3 moderate** | **3 documented for date by more than 3 calendar days** |
| **Severely less than normal activity** | **3 severe** | **3 severe** | **4 moderate** | **4 documented for date and/or person** |
| **Paces back and forth during most of the interview, or constantly thrombs about** | **4 extremely severe** | **4 extremely severe** | **5 severe** | **5 documented for date and/or person** |
| **7 continuous hallucinations** | **5 extreme severe hallucinations** | **5 extreme severe hallucinations** | **6 extreme severe hallucinations** | **6 extreme severe hallucinations** |

This scale is not copyrighted and may be used freely.
TREATMENT SETTINGS FOR ALCOHOL WITHDRAWAL

• office-based management
• withdrawal management services (Detox)
• home-based management
• ED Based management
• hospital-based management
OFFICE-BASED WITHDRAWAL MANAGEMENT

- No history of severe withdrawal (seizures or delirium tremens)
- < 65
- No significant medical or mental health comorbidities
- Patient committed to abstinence and a treatment plan
- Patient agrees to attend a withdrawal management program
- You have time, space and personnel
- Follow the protocol: https://www.porticonetwork.ca/web/alcohol-toolkit/treatment
INDICATIONS FOR TRANSFERRING PATIENTS TO AN ED

• Severe withdrawal, with a CIWA score > 20, with hallucinations or other concerning symptoms.

• Seizure, impending delirium or psychosis (e.g., confusion, hallucinations).

• The patient shows any sign of acute medical illness (e.g., fever, dyspnea).

• CIWA scores continue to climb despite following CIWA protocol.

• CIWA score is ≥10 after four doses of diazepam 80 mg.

• Persistent tachycardia, >120 bpm or irregular beats.

• Suicidal ideation
DISCHARGE FROM THE EMERGENCY DEPARTMENT

• Treatment is completed when the patient is comfortable and has minimal tremor, and the CIWA score is less than 8 on two consecutive readings.

• If the patient is still in some withdrawal, prescribe two or three 10 mg diazepam tablets, to be taken one tablet every four hours, preferably to be dispensed by a partner or friend. The patient should agree not to drink while taking benzodiazepines.

• Send the patient home if an escort is available; otherwise, send the patient to a local withdrawal management service for admission.

• Have the patient followed-up in one or two days.
WITHDRAWAL MANAGEMENT SERVICES (DETOX)

• Most patients who do not need further medical interventions for withdrawal should be referred to withdrawal management services, which are non-medical and community based.

• Provide a safe place for people who are attempting to withdraw from any substance.

• Withdrawal management services provide counselling and treatment referral.

• You can phone a withdrawal management service to find out whether beds are available, but patients need to call or visit the service themselves to secure an assessment.
HOME-BASED WITHDRAWAL MANAGEMENT

- No history of severe withdrawal (e.g., seizures, delirium, hospital admissions) or withdrawal requiring medical management.

- The patient has recently gone without drinking for five or more days and withdrawal symptoms did not progress to more severe withdrawal requiring medical management.

- A support person (partner, family member or friend) agrees to dispense the medication.

- A treatment plan is in place (e.g., medications for alcohol use disorders, ongoing counselling, other treatment groups).

- The patient and the patient’s support person agree to go to the emergency department if withdrawal symptoms become more severe.

- The patient is less than 65 years old and has no significant comorbidities or severe mental health problems.

- The patient agrees not to drink while taking medication.
HOME-BASED WITHDRAWAL PROTOCOL

• The patient has the last drink between 6:00 and 8:00 p.m. the night before.
• The patient takes 10 mg of diazepam, dispensed by the support person, starting the next morning, every four hours as needed for tremor.
• Prescribe no more than 40 mg of diazepam.
• Reassess the patient the next day (by phone or in person).
• The patient visits the clinic within two to three days.

• Connecting to community withdrawal management
• In some communities, an addiction service worker from a withdrawal management service will visit patients in their homes to monitor home-based withdrawal and to arrange formal treatment.
EMERGENCY DEPARTMENT OR OTHER HOSPITAL-BASED WITHDRAWAL MANAGEMENT

- History of severe withdrawal requiring hospitalization (e.g., delirium tremens)
- Use alcohol very heavily (i.e., more than 12 to 15 drinks per day)
- Have a history of withdrawal seizures
- Have significant medical or mental health comorbidities
- Are 65 years old or more
- Are suicidal
- Cannot be monitored appropriately in your office for reasons of time or space
- Are unable to take oral diazepam.
- Emergency department treatment for these patients often involves intravenous rehydration, psychiatric assessment and monitoring of electrolytes, vital signs and cardiac function.
CHALLENGES OF ALCOHOL WITHDRAWAL MANAGEMENT

• Patients can be challenging
  • Denial
  • Non-compliance
  • Unruly behavior

• Complicated by mental health issues
  • Self medication
  • Other substance use
“I WORRY THAT SOME PATIENTS WITH ANXIETY ISSUES END UP SCORING HIGH ON CIWA.”
~ ANTHONY WORSHAM, MD, UNIVERSITY OF NEW MEXICO

- CIWA – too many subjective elements
- Patient-reported symptoms can be related to something else
- Patients with CIWA >20 are so confused and agitated that they can’t describe their symptoms
- Co-morbidities and nurses’ inexperience with CIWA scoring can complicate treatment decisions
- By a CIWA of 8 the horse may be out of the barn
- If ETOH cessation is not the patient’s goal, maybe ETOH is a better agent!

Today’s Hospitalist, October 2015
ETOH WITHDRAWAL
DIFFERENTIAL DIAGNOSIS (OR CO-DIAGNOSES)

- Acute stimulant intoxication
  - cocaine, methamphetamine, caffeine
  - Alcohol intoxication can mimic withdrawal!

- Sepsis
- Thyrotoxicosis
- Heat stroke
- Hypoglycemia
- Intracranial processes (e.g., trauma, CVA)
- Encephalitis/encephalopathy
INAPPROPRIATE USE OF CIWA-AR

• 57% of patients who started on a CIWA-Ar protocol had either zero or one documented risk factor for AWS (19% and 38% respectively).
• 20% had no documentation of recent alcohol use
• 14% were unable to communicate
• 19% of medical records lacked documentation of provider awareness of the ordered protocol
• Benzodiazepine associated adverse events were documented in 15%

INAPPROPRIATE USE OF CIWA-AR

- language barrier exists
- Inability to provide a reliable history because of delirium, dementia, psychosis, etc.

Can Fam Physician 2017 Sep; 63(9): 691–695.
STOPPING OR DISCHARGING PREMATURELY

• Patients with a CIWA score <10 yet still have a severe alcohol withdrawal tremor are at risk of complications of alcohol withdrawal if discharged from the ED.
HOW MUCH BENZO? – ENOUGH! – BUT NOT FOR LONG...

• Because clinicians often are reluctant to administer exceptionally high dosages, under treatment of alcohol withdrawal is a common problem.

• There is a risk of replacing an alcohol addiction with benzodiazepine dependence or adding another addiction.

• The combination of benzodiazepines and alcohol can amplify the adverse psychological effects of each other causing enhanced depressive effects on mood and increase suicidal actions.

Alcohol use and anxiety Am J Psychiatry. 2007;164 (8): 1270
Patients who are discharged from the ED with a prescription for benzodiazepines are put at increased risk for sedative overdose, drug seeking behavior and drug dependence.

It is strongly discouraged that patients be provided a take-away supply or prescription for benzodiazepines. The long half-life of diazepam will protect patients from developing serious symptoms of withdrawal, and if adequately treated in the ED, no additional medications will be required.
PROTRACTED WITHDRAWAL SYNDROME

• **Duration**
  - 6 – 12 months

• **Features**
  - Insomnia
  - Depression
  - Anxiety
  - Irritability
  - Mood swings
  - Cognitive deficits
PREVENTION

• Early identification of problem drinking allows prevention or treatment of complications, including severe withdrawal.
  ● All adult and adolescent patients should be screened to detect problem drinking.
  ● Patients who screen positive for problem drinking should receive a brief intervention designed to moderate their drinking.
FUTURE DIRECTIONS

• Baclofen may relieve severe withdrawal symptoms and reduced craving in alcohol-dependent patients.

• Gabapentin, which is structurally similar to GABA, has been effective in the treatment of alcohol withdrawal in small studies.

• Vigabatrin, which irreversibly blocks GABA transaminase, may improve withdrawal symptoms.

• NS Standard substance withdrawal pathway from start to infinity.
CASES:

• 78 year old man recovering from an urgent hip hemi-arthroplasty develops tachycardia, hypertension, fever, and agitation.

• 42 year old homeless man presents after a witnessed grand mal seizure – tremulous and tachycardic

• 52 yr old woman dragged in by her daughter who says ‘you have to fix her drinking’ Vitals are normal, ETOH 83

• 45 yr old man presents from cells, where he was unable to stand. He has had fecal and urinary incontinence and manages only to tell you to ____-off.
CASES

• 27 year old falls off his bicycle whilst hammered. His (inebriated) friends joke that this is his normal Friday night state

• 44 year old man presents as ‘Suicidal’ – alcoholic x 20 yrs, lost job, family, house, several DUI’s

• 55 yr old lady – Alcoholic for ‘years’ husband has cut her off, she is shaky and anxious. Asking for ativan.

• 60 year old in a rollover MVC, obviously intoxicated, rib fractures, but stable. Several trips to detox in past few years
ALCOHOLISM:
Causes And Risk Factors

Alcoholism, or alcohol use disorder, is a chronic disease that causes cravings, loss of control, physical dependence, and tolerance to alcohol.