



## **Alcohol Withdrawal Management Guide**

Withdrawal symptoms may begin within 6 to 12 hours after the last drink

Symptoms can occur in heavy drinkers who still have detectable alcohol levels in their blood.

Benzodiazepine and GHB (date rape) withdrawal are similarly treated with IV diazepam.

### **A- Management of stable, uncomplicated, mild withdrawal (CIWA-Ar 8-15, see annex)**

For the prevention of Delirium Tremens (DT) and Wernicke's Encephalopathy (WE) \*\*

**1- Diazepam (Valium) 10-20mg PO q1-2h prn** until symptoms abate or CIWA-Ar score <8.

Tapering doses are not required after this loading dose. Observe for 1-2 hours after last dose.

Take-home medication for outpatients generally not required but if necessary (Diazepam 10mg 2 co prn).

Consider reassessing patient daily to readjust dosing prn.

<b>If patient has :</b>	<b>Medication of choice</b>
<b>History of withdrawal seizures</b>	Diazepam 20mg PO q1h x <b>minimum</b> 3 doses
<b>Renal or liver dysfunction</b>	Lorazepam
<b>Elderly (&gt;60 yr old)</b>	Lorazepam
<b>Hallucinosi s</b> (12-48hr after last drink) must consider Delirium Tremens	Consider adding antipsychotics (Olanzapine, Haloperidol) <i>NB antipsychotics can lowers seizure threshold</i>

\*\*This loading guide will NOT prevent seizures in patients already taking regular large doses of benzodiazepines or barbiturates in addition to alcohol. Consider admission to ward.

#### **Accepted alternatives:**

- **Lorazepam (Ativan)** 1-2mg PO q2hr prn (Take-home medication: 1-2mg QID prn x 3-4 days #10 tabs).

- **Carbamazepine (Tegretol)** 200mg PO q6hr day 1, q8hr day 2, q12h day 3, once daily day 4.

*NB do not use carbamazepine in moderate/severe alcohol withdrawal: does not prevent seizures.*

#### **2-Thiamine 100mg IM x 1, then 100mg PO for 3 days**

*Decreases risk of Wernicke's encephalopathy: clinical triad of encephalopathy, oculomotor dysfunction, and gait ataxia.*

#### **Admit to hospital if:**

- Withdrawal symptoms persists after 80mg or more of diazepam

- Delirium Tremens (DT) is suspected: (eg. onset of fever, disorientation, seizures, drenching sweats, severe tachycardia or hypertension, usually 48-96hr after last drink)

- Recurrent arrhythmias or seizures (or history of these)

- Concurrent medical or psychiatric illness

- CIWA-Ar score >15 (=moderate/severe)



## **B- Management of moderate to severe withdrawal and Delirium Tremens (CIWA-Ar >15)**

*Mortality 5% if treated appropriately; consider transfer to an Intensive Care Unit*

**1- Diazepam 5-10mg IV push, then q 5-15 minutes PRN** (max : up to 500mg.....) : until appropriate level of sedation achieved, under adequate monitoring. Goal: calm but alert state.

*NB appropriate initial loading decreases time of admission.*

**Symptom triggered therapy is preferred** (requires regular reassessment with CIWA-Ar scores):

- In patients with severe symptoms with IV therapy: assessments q 15minutes. Once severe symptoms are controlled, assessments q 1hour are appropriate.
- In stable patients with mild symptoms reassessment every 4 hours is reasonable. If symptom recurrence of CIWA-A >8, give diazepam 5-10mg IV push stat.

**If liver dysfunction/cirrhosis/elderly:**

Consider Lorazepam 1-4mg IV q 15-30min prn; infusion 1-4mg/hr IV with 2-4mg IV boluses prn

*Preparation: Mix 12mg (ie 3x4mg vials) in 120ml NS or D5NS (pvc-free bag, use pyolefine bag)*

*Concentration = 0.1mg/ml; perfuse at 10-40cc/hr*

*NB mix is stable x 7d room temp or fridge*

**2-Thiamine and Wernicke's encephalopathy:**

Prevention of WE: 100mg IV die X 3 days, then PO 100mg daily until no longer at risk of WE.

Treatment of WE: 500mg IV TID (in 50ml NS bag, over 30min) x 2 days, then 500mg IV/IM die x 5 days

**(& discuss with toxicology)**

**3-Hydration/volume correction with IV Normal Saline (or D5NS)**

Make sure Thiamine is given before or at same time as glucose if D5NS is used.

**4-No evidence supports the 'banana multivitamin bag'**

**5-Screen for alcoholic ketoacidosis:** Verify Anion Gap & lactate

Treatment: D50% 1amp, followed by D5%NS IV and follow very closely (give Thiamine before or at same time)

**6-In refractory cases of Delirium Tremens**

**Strongly consider discussing case with ICU**

Consider Phenobarbital 120mg-240mg IV (over 30 min), q 15-30 min (**max total dose 1-2g**),

Or Propofol, and prepare for likely intubation.

*NB Phenytoin has been shown to be ineffective in the treatment of alcohol withdrawal seizures.*

### References:

- [www.uptodate.com](http://www.uptodate.com) Wernicke's encephalopathy. Consulted March 19, 2013. Last update Nov 4, 2009.
- [www.uptodate.com](http://www.uptodate.com) Management of moderate and severe alcohol withdrawal syndromes. Consulted March 19, 2013. Last updated Oct 23, 2012.
- [www.uptodate.com](http://www.uptodate.com) Ambulatory alcohol detoxification. Consulted March 19, 2013. Last updated Oct 8, 2012.
- Cornwall community hospital best practice guideline: Alcohol withdrawal management for emergency department. March 2007.
- Sullivan JT, Sykora K, Schneiderman J, Naranjo CA, Sellers EM. Assessment of alcohol withdrawal: the revised clinical institute withdrawal assessment for alcohol scale (CIWA-Ar). Br J Addict. 1989;84(11):1353.
- Dr Larocque, toxicologist CHUM, AMUQ 2012



## CIWA-Ar Clinical Institute Withdrawal Assessment from Alcohol-Revised

<p><b>Nausea and vomiting: "Do you feel sick to your stomach? Have you vomited?"</b></p> <p>0 No nausea or vomiting</p> <p>1</p> <p>2</p> <p>3</p> <p>4 Intermittent nausea with dry heaves</p> <p>5</p> <p>6</p> <p>7 Constant nausea, frequent dry heaves and vomiting</p>	<p><b>Headache, fullness in head: "Does your head feel different? Does it feel as if there is a band around your head?" Do not rate for dizziness or lightheadedness.</b></p> <p>0 Not present</p> <p>1 Very mild</p> <p>2 Mild</p> <p>3 Moderate</p> <p>4 Moderately severe</p> <p>5 Severe</p> <p>6 Very severe</p> <p>7 Extremely severe</p>
<p><b>Paroxysmal sweats</b></p> <p>0 No sweats visible</p> <p>1 Barely perceptible sweating, palms moist</p> <p>2</p> <p>3</p> <p>4 Beads of sweat obvious on forehead</p> <p>5</p> <p>6</p> <p>7 Drenching sweats</p>	<p><b>Auditory disturbances: "Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing to you? Are you hearing things you know are not there?"</b></p> <p>0 Not present</p> <p>1 Very mild harshness or ability to frighten</p> <p>2 Mild harshness or ability to frighten</p> <p>3 Moderate harshness or ability to frighten</p> <p>4 Moderately severe hallucinations</p> <p>5 Severe hallucinations</p> <p>6 Extremely severe hallucinations</p> <p>7 Continuous hallucinations</p>
<p><b>Anxiety: "Do you feel nervous?"</b></p> <p>0 No anxiety, at ease</p> <p>1 Mildly anxious</p> <p>2</p> <p>3</p> <p>4 Moderately anxious, guarded</p> <p>5</p> <p>6</p> <p>7 Acute panic state (as seen with severe delirium or acute schizophrenia)</p>	<p><b>Visual disturbances: "Does the light appear to be too bright? Is its color different? Does it hurt your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you know are not there?"</b></p> <p>0 Not present</p> <p>1 Very mild photosensitivity</p> <p>2 Mild photosensitivity</p> <p>3 Moderate photosensitivity</p> <p>4 Moderately severe visual hallucinations</p> <p>5 Severe visual hallucinations</p> <p>6 Extremely severe visual hallucinations</p> <p>7 Continuous visual hallucinations</p>
<p><b>Agitation</b></p> <p>0 Normal activity</p> <p>1 Somewhat more than normal activity</p> <p>2</p> <p>3</p> <p>4 Moderately fidgety and restless</p> <p>5</p> <p>6</p> <p>7 Paces back and forth during most of the interview or constantly thrashes about</p>	<p><b>Tactile disturbances: "Have you any itching, pins and needles sensations, burning sensations, numbness or do you feel bugs crawling on or under your skin?"</b></p> <p>0 None</p> <p>1 Very mild paresthesias</p> <p>2 Mild paresthesias</p> <p>3 Moderate paresthesias</p> <p>4 Moderately severe hallucinations</p> <p>5 Severe hallucinations</p> <p>6 Extremely severe hallucinations</p> <p>7 Continuous hallucinations</p>
<p><b>Tremor: arms extended and fingers spread apart</b></p> <p>0 No tremor</p> <p>1 Not visible, but can be felt at fingertips</p> <p>2</p> <p>3</p> <p>4 Moderate when patient's hands extended</p> <p>5</p> <p>6</p> <p>7 Severe, even with arms not extended</p>	<p><b>Orientation and clouding of sensorium: "What day is this? Where are you? Who am I?"</b></p> <p>0 Oriented and can do serial additions</p> <p>1 Cannot do serial additions</p> <p>2 Disoriented for date by no more than 2 calendar days</p> <p>3 Disoriented for date by more than 2 calendar days</p> <p>4 Disoriented for place and/or patient</p>

Total score is a sum of each item score (maximum score 67)

<10: very mild withdrawal; 10-15: Mild withdrawal; 16-20: Moderate withdrawal; > 20: Severe withdrawal