Non-Iatrogenic (Recreational) Substance Withdrawal Care Guideline

Inclusion Criteria: Intoxicated and/or history or concern for **alcohol** abuse and/or **benzodiazepine** withdrawal [occurs after using high doses (above 2-3x the upper limit of therapeutic dose) for at least 2 months] and/or currently under the influence of and/or history of non-iatrogenic (recreational) **opioid** use.
Exclusion Criteria: Intubated patients

If withdrawing from multiple sources:

- **Alcohol** withdrawal **supersedes** benzodiazepine and opioid withdrawals.
- **Benzodiazepine** withdrawal **supersedes** opioid withdrawal.
- If alcohol is also abused with benzodiazepine or opioids, use the alcohol care guideline;
- If benzodiazepine is abused with opioids use benzodiazepine care guideline;
- If alcohol, benzodiazepine, and opioids are all abused, use the alcohol care guideline.

Alcohol Withdrawal

Tool = CIWA-Ar

[Clinical Institute Withdrawal Assessment Alcohol Scale – Revised (Appendix A)]

Proceed to page 2

Benzodiazepine Withdrawal

Tool = CIWA-B

[Clinical Institute Withdrawal Assessment Scale – Benzodiazepines (Appendix B)]

Proceed to page 3

Opioid Withdrawal

Tool = COWS

[Clinical Opiate Withdrawal Scale (Appendix C)]

Proceed to page 4

Overall Care Guideline GRADE: B

Approved Evidence Based Medicine Committee 7-21-2021

Reassess the appropriateness of Care Guidelines as condition changes and 24 hrs after admission. This guideline is a tool to aid clinical decision making. It is not a standard of care. The physician should deviate from the guideline when clinical judgment so indicates.

Non-Iatrogenic (Recreational) Substance Withdrawal Care Guideline

Alcohol Withdrawal

CHOC Children's

Inclusion Criteria: Intoxicated and/or history or concern for alcohol abuse
Exclusion Criteria: Intubated patients

If patient is obtunded obtain blood alcohol and toxicology screen

Minor Symptoms [Start about 6 hours after last drink]

- Insomnia
- Tremulousness
- Anxiety
- GI upset, decreased appetite
- Headache
- Diaphoresis
- Palpitations

Interventions

- Begin **CIWA-Ar** (Clinical Institute Withdrawal Assessment Alcohol Scale – Revised) every 4 hours
- Supportive treatment: IVF @ 2x maintenance for 24h then reassess & daily PO multi-vitamin (see order set).

CIWA-Ar < 10

- No medications
- Can use Clonidine for sleep

CIWA-Ar 10-15

- Give Lorazepam 0.02 mg/kg for < 50kg Q4H
- Give Lorazepam 1 mg IV for > 50kg Q4H

CIWA-Ar 15+

- Give Lorazepam 0.04 mg/kg for < 50kg Q2H
- Give Lorazepam 2 mg PO/IV > 50kg Q2H
- Evaluate for possible DTs
- Contact PICU for possible admit/transfer

Interventions Continued

- If no meds are given – monitor patient q 4 hrs with CIWA-Ar x 24hrs then q12hr x 72hr, then discontinue
- If medicated – reassess patient with CIWA-Ar within 1 hour
- Monitor patient every 4 hours with CIWA-Ar until score is 8-10 or below for 24hrs
- If scores remain low (10-24) after 24hrs, then taper lorazepam to 1mg Q4H PO/IV, then 1mg Q8H PO/IV then 0.5mg PO/IV Q8H then stop.
  - One decrease every 24 hours.
  - If less than 10 for 24 hrs, can switch to PO after initial 24 hours
- If patient is requiring 2 or more every 2 hour doses of lorazepam (scores >15), contact provider to assess effectiveness prior to administering 3rd dose

Recommendations/ Considerations

- About 12 - 25hrs into withdrawal, we often see alcoholic hallucinosis. Vitals are normal. Often patients see and hear things that are not there. They can also feel things crawling on them when there is nothing apparent on their skin. Their sensorium is not clouded.
- About 12 - 48hrs into withdrawal, we often see withdrawal seizures in this time period.
- About 5% of patients in alcohol withdrawal undergo DTs (delirium tremens) which is a potentially fatal state. DTs begin 48 - 96hrs into withdrawal and include hallucinations, delirium (not oriented to self/place/time/situation), high BP, high temp, agitation and diaphoresis. They hyperventilate which can trigger respiratory alkalosis and therefore decreased cerebral flow. DTs often occur in those who have a long history of drinking, history of withdrawal seizures, prior DTs, older patients.
- Primary service to contact psychiatry if agitated and/or unable to bring down CIWA-Ar score x 24 hours

Patient/Family Education

- 'Substance Abuse Withdrawal' handout
- Can go home with taper but need to ensure patient/family educated and safe via teach-back

Discharge Criteria

- Safe to taper at home
- Has safe home with caregivers
- Scheduled F/U with PCP within 1 week of discharge +/- outpatient rehab

Non-Iatrogenic (Recreational) Substance Withdrawal Care Guideline

Benzodiazepine Withdrawal

CHOC Children's

Inclusion Criteria: Benzodiazepine withdrawal occurs after using high doses (above 2-3x the upper limit of therapeutic dose) for at least 2 months
Exclusion Criteria: Intubated patients. If also withdrawing from alcohol use the CIWA-Ar tool and alcohol withdrawal guidelines

If patient is obtunded obtain blood alcohol and toxicology screen

Symptoms
[Starts about 12 hours after last use]

- Tachycardia
- Agitation
- Anxiety
- Delirium
- Seizures
- Insomnia and nightmares
- Tremor and hyperreflexia
- Tinnitus
- Nausea, diarrhea, no appetite

Recommendations/ Considerations

- Depends on which benzodiazepine they are using, how long they have been using for and if benzo is short-acting or long-acting
- Withdrawal starts about 12hrs after last use
- We do not use the scale to dose meds unlike other drug withdrawal states
- Primary service to contact psychiatry if agitated and/or unable to bring down CIWA-B score x 24 hours

Patient/Family Education

- 'Substance Abuse Withdrawal' handout
- Can go home with taper but need to ensure patient/family educated and safe via teach-back

Interventions

- Treatment: We use benzodiazepines to treat benzodiazepine withdrawal
- Supportive treatment: IVF @ 2x maintenance for 24h then reassess & daily PO multi-vitamin (see order set).
- Start **CIWA-B** (Clinical Institute Withdrawal Assessment Scale – Benzodiazepines).
- Repeat scale every 4 hours.
- Convert patient's daily benzodiazepine intake into equivalent dose of long-acting benzodiazepine, preferably diazepam.
- Start diazepam at half the determined dose (i.e. pt uses 80mg diazepam equivalent per day = 20mg QID so start with 10mg QID).
- If patient is on other CNS depressants, then use half diazepam dosing.
- If patients level of consciousness is less than awake and alert, hold dose, notify provider and reassess at next scheduled dose.
- Taper diazepam dose by 10mg each day until on 10mg QID then taper to TID, BID, QD, then discontinue.
- If symptoms worsen, stay at that same diazepam dose for 1-2 days then start taper again (do not increase dose).

Discharge Criteria

- Safe to have benzodiazepine taper at home, with appropriate supervision by caregiver (taper as above in intervention box).
- Has safe home with caregivers
- Scheduled follow up with PCP within 1 week of discharge +/- outpatient rehab

Non-Iatrogenic (Recreational) Substance Withdrawal Care Guideline

Opioid Withdrawal

CHOC Children's

Inclusion Criteria: Currently under the influence of and/or history of non-iatrogenic (recreational) opioid use.

Exclusion Criteria: Intubated patients. If alcohol is also abused, use the alcohol care guideline; if benzodiazepine is abused with opioids use benzodiazepine care guideline; if alcohol, benzodiazepine and opioids are all abused, use the alcohol care guideline.

If patient is obtunded obtain blood alcohol and toxicology screen

Symptoms

[Start about 4 - 24 hours after last use depending on type of opioid]

- Tachycardia
- Dilated pupils
- Rhinorrhea
- Piloerection
- Tremor
- GI upset – nausea, diarrhea
- Insomnia
- Muscle/Joint pain, whole body pain
- Anxiety/Irritability
- Chills

Interventions

- Supportive treatment: IVF @ 2x maintenance for 24h then reassess & daily PO multi-vitamin (see order set).
- Initiate **COWS** (Clinical Opiate Withdrawal Scale).
- Repeat **COWS** every 4 hours.

Mild (5-12)

- Symptomatic support
- Clonidine 0.1mg to 0.2mg PO q4h to help with insomnia, aches, rhinorrhea, temperature dysregulation
- Ibuprofen for body aches/pain
  - 10mg/kg PO q6h PRN Pain
  - 600mg PO q6h >50kg PRN Pain

Moderate (13-24), Moderate Severe (25-36), & Severe (36+)

- Use Mild criteria support

AND

- Loperamide for diarrhea
  - 0.1 mg/kg PO BID <20kg PRN
  - 2mg PO BID >20kg PRN
- Hydroxyzine for anxiety
  - 0.5mg/kg PO q6h PRN (max 25mg)
- Ondansetron for nausea
  - 0.1 mg/kg IV q8h <40kg PRN
  - 4 mg IV q8h >40 kg PRN
- Melatonin for sleep
  - 1 mg PO at bedtime for > 6y PRN

Considerations

- If patient agitated:
  - Call psychiatry to discuss medication
  - iSTEP consult
  - CCM trained staff, if available

Recommendations/Considerations

- Of note, many drug rehabs will NOT accept someone in acute withdrawal or someone on benzodiazepine or methadone. Another reason to avoid use except in severe cases

Patient/Family Education

- 'Substance Abuse Withdrawal' handout

Discharge Criteria

- Stable off medications
- Has safe home with caregivers
- Scheduled follow up with PCP within 1 week of discharge +/- outpatient rehab

CIWA-Ar

Clinical Institute Withdrawal Assessment of Alcohol Scale - Revised

Date:

Name:

NAUSEA AND VOMITING

Ask "Do you feel sick to your stomach? Have you vomited?" Observation.

0 No nausea and no vomiting
1 Mild nausea with no vomiting
2
3
4 Intermittent nausea with dry heaves
5
6
7 Constant nausea, frequent dry heaves and vomiting

TREMOR

Arms extended and fingers spread apart. Observation.

0 No tremor
1 Not visible, but can be felt fingertip to fingertip
2
3
4 Moderate, with patient's arms extended
5
6
7 Severe, even with arms not extended

PAROXYSMAL SWEATS

Observation.

0 No sweat visible
1 Barely perceptible sweating, palms moist
2
3
4 Beads of sweat obvious on forehead
5
6
7 Drenching sweats

ANXIETY

Ask "Do you feel nervous?" Observation.

0 No anxiety, at ease
1 Mild anxious
2
3
4 Moderately anxious, or guarded, so anxiety is inferred
5
6
7 Equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions

AGITATION

Observation.

0 Normal activity
1 Somewhat more than normal activity
2
3
4 Moderately fidgety and restless
5
6
7 Paces back and forth during most of the interview, or constantly thrashes about

TACTILE DISTURBANCES

Ask "Have you any itching, pins and needles sensations, any burning, any numbness, or do you feel bugs crawling on or under your skin?" Observation.

0 None
1 Very mild itching, pins and needles, burning or numbness
2 Mild itching, pins and needles, burning or numbness
3 Moderate itching, pins and needles, burning or numbness
4 Moderately severe hallucinations
5 Severe hallucinations
6 Extremely severe hallucinations
7 Continuous hallucinations

AUDITORY DISTURBANCES

Ask "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?" Observation.

0 Not present
1 Very mild harshness or ability to frighten
2 Mild harshness or ability to frighten
3 Moderate harshness or ability to frighten
4 Moderately severe hallucinations
5 Severe hallucinations
6 Extremely severe hallucinations
7 Continuous hallucinations

VISUAL DISTURBANCES

Ask "Does the light appear to be too bright? Is its colour different? Does it hurt your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you know are not there?" Observation.

0 Not present
1 Very mild sensitivity
2 Mild sensitivity
3 Moderate sensitivity
4 Moderately severe hallucinations
5 Severe hallucinations
6 Extremely severe hallucinations
7 Continuous hallucinations

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 lightheadedness. Otherwise, rate severity.

0 Not present
1 Very mild
2 Mild
3 Moderate
4 Moderately severe
5 Severe
6 Very severe
7 Extremely severe

ORIENTATION AND CLOUDING OF SENSORIUM

Ask "What day is this? Where are you? Who am I?"

0 Oriented and can do serial additions
1 Cannot do serial additions or is uncertain about date
2 Disoriented for date by no more than 2 calendar days
3 Disoriented for date by more than 2 calendar days
4 Disoriented for place/or person

Withdrawal scales were developed to assist the monitoring and management of withdrawal symptoms. It is important to note that withdrawal scales are not diagnostic tools.

Interpretation of scores. The maximum score is 67. Patients scoring less than 10 do not usually need additional medication for withdrawal.

Total CIWA-Ar Score:

Source: Sulivan JT, Sykora K, Schneiderman J, Naranjo CA, Sellers EM. Assessment of alcohol withdrawal: The Revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA-Ar). British Journal of Addiction to Alcohol and Other Drugs. 1989;84(11):1353-7. doi: 10.1111/j.1360-0443.1989.tb00737.x

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CIWA-B

Clinical Institute Withdrawal Assessment Scale - Benzodiazepines

Name:

Objective physiological assessment

For each of the following items, please circle the number which best describes the severity of each symptom or sign.

1	Observe behaviour for restlessness and agitation	0 None, normal activity	1	2 Restless	3	4 Paces back and forth, unable to sit still
2	Ask patient to extend arms with fingers apart, observe tremor	0 No tremor	1 Not visible, can be felt in fingers	2 Visible but mild	3 Moderate, with arms extended	4 Severe, with arms not extended
3	Observe for sweating, feel palms	0 No sweating visible	1 Barely perceptible sweating, palms moist	2 Palms and forehead moist, reports armpit sweating	3 Beads of sweat on forehead	4 Severe drenching sweats

Patient self-report

For each of the following items, please circle the number which best describes how you feel.

4	Do you feel irritable?	0 Not at all	1	2	3	4 Very much so
5	Do you feel fatigued (tired)?	0 Not at all	1	2	3	4 Unable to function due to fatigue
6	Do you feel tense?	0 Not at all	1	2	3	4 Very much so
7	Do you have difficulties concentrating?	0 No difficulty	1	2	3	4 Unable to concentrate
8	Do you have any loss of appetite?	0 No loss	1	2	3	4 No appetite, unable to eat
9	Have you any numbness or burning in your face, hands or feet?	0 No numbness	1	2	3	4 Intense burning or numbness
10	Do you feel your heart racing (palpitations)?	0 No disturbance	1	2	3	4 Constant racing
11	Does your head feel full or achy?	0 Not at all	1	2	3	4 Severe headache
12	Do you feel muscle aches or stiffness?	0 Not at all	1	2	3	4 Severe stiffness or pain
13	Do you feel anxious, nervous or jittery?	0 Not at all	1	2	3	4 Very much so
14	Do you feel upset?	0 Not at all	1	2	3	4 Very much so
15	How restful was your sleep last night?	0 Very restful	1	2	3	4 Not at all
16	Do you feel weak?	0 Not at all	1	2	3	4 Very much so
17	Do you think you had enough sleep last night?	0 Yes, very much so	1	2	3	4 Not at all
18	Do you have any visual disturbances? (sensitivity to light, blurred vision)	0 Not at all	1	2	3	4 Very sensitivity to light, blurred vision
19	Are you fearful?	0 Not at all	1	2	3	4 Very much so
20	Have you been worrying about possible misfortunes lately?	0 Not at all	1	2	3	4 Very much so

21	How many hours of sleep do you think you had last night?	
22	How many minutes do you think it took you to fall asleep last night?	

Total CIWA-B Score:	

Interpretation of scores: Sum of items 1-20

1–20 = mild withdrawal
21–40 = moderate withdrawal
41–60 = severe withdrawal
61–80 = very severe withdrawal

Source: Busto UE, Sykora K, Sellers EM. A clinical scale to assess benzodiazepine withdrawal. Journal of Clinical Psychopharmacology. 1989;9(6):412-6. doi: 10.1097/00004714-198912000-00005

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Withdrawal scales were developed to assist the monitoring and management of withdrawal

APPENDIX 1
Clinical Opiate Withdrawal Scale

For each item, circle the number that best describes the patient's signs or symptom. Rate on just the apparent relationship to opiate withdrawal. For example, if heart rate is increased because the patient was jogging just prior to assessment, the increase pulse rate would not add to the score.

Patient's Name:_____ Date and Time ____/____/____:_____

Reason for this assessment:_____

Resting Pulse Rate: _____beats/minute *Measured after patient is sitting or lying for one minute* 0 pulse rate 80 or below 1 pulse rate 81-100 2 pulse rate 101-120 4 pulse rate greater than 120	**GI Upset**: *over last* 1/2 *hour* 0 no GI symptoms 1 stomach cramps 2 nausea or loose stool 3 vomiting or diarrhea 5 multiple episodes of diarrhea or vomiting
Sweating: *over past* 1/2 *hour not accounted for by room temperature or patient activity.* 0 no report of chills or flushing 1 subjective report of chills or flushing 2 flushed or observable moistness on face 3 beads of sweat on brow or face 4 sweat streaming off face	**Tremor** *observation of outstretched hands* 0 no tremor 1 tremor can be felt, but not observed 2 slight tremor observable 4 gross tremor or muscle twitching
Restlessness *Observation during assessment* 0 able to sit still 1 reports difficulty sitting still, but is able to do so 3 frequent shifting or extraneous movements of legs/arms 5 unable to sit still for more than a few seconds	**Yawning** *Observation during assessment* 0 no yawning 1 yawning once or twice during assessment 2 yawning three or more times during assessment 4 yawning several times/minute
Pupil size 0 pupils pinned or normal size for room light 1 pupils possibly larger than normal for room light 2 pupils moderately dilated 5 pupils so dilated that only the rim of the iris is visible	**Anxiety or Irritability** 0 none 1 patient reports increasing irritability or anxiousness 2 patient obviously irritable or anxious 4 patient so irritable or anxious that participation in the assessment is difficult
Bone or Joint aches *If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored* 0 not present 1 mild diffuse discomfort 2 patient reports severe diffuse aching of joints/muscles 4 patient is rubbing joints or muscles and is unable to sit still because of discomfort	**Gooseflesh skin** 0 skin is smooth 3 piloerrection of skin can be felt or hairs standing up on arms 5 prominent piloerrection
Runny nose or tearing *Not accounted for by cold symptoms or allergies* 0 not present 1 nasal stuffiness or unusually moist eyes 2 nose running or tearing 4 nose constantly running or tears streaming down cheeks	Total Score _____ The total score is the sum of all 11 items Initials of person completing assessment: _____

Score: 5-12 = mild; 13-24 = moderate; 25-36 = moderately severe; more than 36 = severe withdrawal

This version may be copied and used clinically.

Source: Wesson, D. R., & Ling, W. (2003). The Clinical Opiate Withdrawal Scale (COWS). *J Psychoactive Drugs,* 35(2), 253–9.

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Non-Iatrogenic (Recreational Substance) Withdrawal Care Guideline

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