

ACCEPT

Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics

Webex link to join from PC, Mac, iOS or Android:

https://uwmadison.webex.com/uwmadison/j.php?MTID=m6dfbe50f3c56cb4719e74b72b73ef9

Join by phone: +1-415-655-0001

Meeting number/Access code: 120 276 9209

Password: 12345

For attendance, purposes please text the following code: GAKVUY to 608-260-7097

Session Date: Friday, February 17, 2023

Didactic Topic and Presenter:

Outpatient Benzodiazepine Withdrawal Management

Ritu Bhatnagar, MD MPH FASAM DFAPA
University of Wisconsin School of Medicine and Public Health

Content Experts:

Ritu Bhatnagar, MD; CRC; Sheila M. Weix, MSN, RN, CARN, Joesph Galey, CPS

- 12:15 PM: Attendance text-in Introductions
- 12:25 PM: Case Presentation and Discussion
 - Presenter: Jayme Christoffersen Cebi, DO University of Wisconsin Hospitals and Clinics, Department of Psychiatry
- 1 PM: Didactic Presentation
 - Presenter: Ritu Bhatnagar, MD MPH FASAM DFAPA University of Wisconsin School of Medicine and Public Health
- 1:15 PM End of Session

Funding for this service was made possible by 435200-G-18-11448-285932-880 from Wisconsin Department of Health Services. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government or the State of Wisconsin.





CONTINUING EDUCATION INFORMATION:

Accreditation Statement



In support of improving patient care, the University of Wisconsin–Madison ICEP is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

Credit Designation Statements

American Medical Association (AMA)

The University of Wisconsin–Madison ICEP designates this live activity for a maximum of 1 *AMA PRA Category* 1 *Credit*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity. **American Nurses Credentialing Center (ANCC)**

The University of Wisconsin-Madison ICEP designates this live activity for a maximum of 1 ANCC contact hour.

Accreditation Council for Pharmacy Education (ACPE)

The University of Wisconsin–Madison ICEP designates this knowledge-based activity for a maximum of 1.0 hours or 0.1 CEUs of CPE credit. Credit can be earned by successfully completing the activity and the evaluation. Credit will be provided to NABP CPE Monitor within 60 days after the activity completion.

2023 Universal Activity Number (UAN): JA0000358-0000-23-025-L01-P; JA0000358-0000-23-025-L01-T Continuing Education Units

The University of Wisconsin–Madison ICEP, as a member of the University Professional & Continuing Education Association (UPCEA), authorizes this program for 0.1 continuing education units (CEUs) or 1 hour.

POLICY ON FACULTY AND SPONSOR DISCLOSURE

It is the policy of the University of Wisconsin–Madison Interprofessional Continuing Education Partnership (ICEP) to identify, mitigate and disclose all relevant financial relationships with ineligible companies* held by the speakers/presenters, authors, planners, and other persons who may influence content of this accredited continuing education (CE). In addition, speakers, presenters and authors must disclose any planned discussion of unlabeled/unapproved uses of drugs or devices during their presentation. For this accredited continuing education activity, all relevant financial relationships have been mitigated and detailed disclosures are listed below.

* Ineligible companies are those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients. The ACCME does not consider providers of clinical service directly to patients to be commercial interests.



ECHO ACCEPT

Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics 2022-2024

Outpatient Benzodiazepine Withdrawal Management 2/17/2023

Didactic Presenter: Ritu Bhatnagar, MD MPH FASAM DFAPA Case Presenter: Jayme Christoffersen-Cebi, DO

Provided by the University of Wisconsin–Madison Interprofessional Continuing Education Partnership (ICEP)

Intended Audience:

Nurses, Nurse Practitioners, Pharmacists, Physicians, Physician Assistants, Pharmacy Technicians, Psychologists, Social Workers, Patient/Caregivers, Students

Objectives:

As a result of this educational regularly scheduled series, learners as members of the healthcare team will be able to:

- 1. Describe need for benzodiazepine withdrawal.
- 2. Explain challenges encountered by patients during benzodiazepine withdrawal.
- 3. Identify options for managing symptoms of benzodiazepine withdrawal for prescribers.

implications

Policy on Disclosure

It is the policy of the University of Wisconsin–Madison Interprofessional Continuing Education Partnership (ICEP) to identify, mitigate and disclose all relevant financial relationships with ineligible companies* held by the speakers/presenters, authors, planners, and other persons who may influence content of this accredited continuing education (CE). In addition, speakers, presenters and authors must disclose any planned discussion of unlabeled/unapproved uses of drugs or devices during their presentation. For this accredited continuing education activity, all relevant financial relationships have been mitigated and detailed disclosures are listed below.

* Ineligible companies are those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients. The ACCME does not

consider providers of clinical service directly to patients to be commercial interests.

Name	Role	Financial Relationship Disclosures	Discussion of Unlabeled/Unapproved uses of drugs/devices in presentation?	COI completion date
Randall Brown	RSS Chair	Usona Institute (Grant / Contract), multi-disciplinary association for psychedelic studies (Grant / Contract)	Yes	1/30/2023
Nada Rashid	RSS Coordinator	No relevant financial relationships to disclose	No	1/31/2023
Kathleen Maher	RSS Coordinator	No relevant financial relationships to disclose	No	1/30/2023
Ritu Bhatnagar	Planner	No relevant financial relationships to disclose	Yes	1/29/2023
Paul Hutson	Planner	No relevant financial relationships to disclose	Yes	1/28/2023
Susan Mindock	Planner	No relevant financial relationships to disclose	No	1/31/2023
Sheila Weix	Planner	No relevant financial relationships to disclose	No	2/3/2023
Kellene Eagen	Planner	No relevant financial relationships to disclose	No	1/27/2023
Joseph Galey	Planner	No relevant financial relationships to disclose	Yes	1/27/2023
Ritu Bhatnagar	Presenter	No relevant financial relationships to disclose	Yes	2/5/2023

Jayme	Presenter	No relevant financial relationships to disclose	No	2/15/2023
Christoffersen-Cebi		·		

Accreditation Statement



In support of improving patient care, the University of Wisconsin–Madison ICEP is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

Credit Designation Statements

American Medical Association (AMA)

The University of Wisconsin–Madison ICEP designates this live activity for a maximum of 1 *AMA PRA Category 1 Credit*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

American Nurses Credentialing Center (ANCC)

The University of Wisconsin–Madison ICEP designates this live activity for a maximum of 1 ANCC contact hour.

Accreditation Council for Pharmacy Education (ACPE)

The University of Wisconsin–Madison ICEP designates this knowledge-based activity for a maximum of 1.0 hours or 0.1 CEUs of CPE credit. Credit can be earned by successfully completing the activity and the evaluation. Credit will be provided to NABP CPE Monitor within 60 days after the activity completion.

2023 Universal Activity Number (UAN): JA0000358-0000-23-025-L01-P; JA0000358-0000-23-025-L01-T

Continuing Education Units

The University of Wisconsin–Madison ICEP, as a member of the University Professional & Continuing Education Association (UPCEA), authorizes this program for 0.1 continuing education units (CEUs) or 1 hour.

POLICY ON FACULTY AND SPONSOR DISCLOSURE

It is the policy of the University of Wisconsin–Madison Interprofessional Continuing Education Partnership (ICEP) to identify, mitigate and disclose all relevant financial relationships with ineligible companies* held by the speakers/presenters, authors, planners, and other persons who may influence content of this accredited continuing education (CE). In addition, speakers, presenters and authors must disclose any planned discussion of unlabeled/unapproved uses of drugs or devices during their presentation. For this accredited continuing education activity, all relevant financial relationships have been mitigated and detailed disclosures are listed below.

* Ineligible companies are those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients. The ACCME does not consider providers of clinical service directly to patients to be commercial interests.



Case Presentation

Jayme Christoffersen Cebi, DO
University of Wisconsin Hospitals and Clinics
Department of Psychiatry

Funding for this service was made possible by 435200-G-18-11448-285932-880 from Wisconsin Department of Health Services. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government or the State of Wisconsin.



Accreditation Statement:

In support of improving patient care, the University of Wisconsin–Madison ICEP is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

Credit Designation Statements

American Medical Association (AMA)

The University of Wisconsin–Madison ICEP designates this live activity for a maximum of 1 AMA PRA Category 1 CreditTM. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

American Nurses Credentialing Center (ANCC)

The University of Wisconsin–Madison ICEP designates this live activity for a maximum of 1 ANCC contact hour.

Accreditation Council for Pharmacy Education (ACPE)

The University of Wisconsin–Madison ICEP designates this knowledge-based activity for a maximum of 1.0 hours or 0.1 CEUs of CPE credit. Credit can be earned by successfully completing the activity and the evaluation. Credit will be provided to NABP CPE Monitor within 60 days after the activity completion.

2023 Universal Activity Number (UAN): JA0000358-0000-23-025-L01-P; JA0000358-0000-23-025-L01-T

Continuing Education Units

The University of Wisconsin–Madison ICEP, as a member of the University Professional & Continuing Education Association (UPCEA), authorizes this program for 0.1 continuing education units (CEUs) or 1 hour.

POLICY ON FACULTY AND SPONSOR DISCLOSURE

It is the policy of the University of Wisconsin–Madison Interprofessional Continuing Education Partnership (ICEP) to identify, mitigate and disclose all relevant financial relationships with ineligible companies* held by the speakers/presenters, authors, planners, and other persons who may influence content of this accredited continuing education (CE). In addition, speakers, presenters and authors must disclose any planned discussion of unlabeled/unapproved uses of drugs or devices during their presentation. For this accredited continuing education activity, all relevant financial relationships have been mitigated and detailed disclosures are listed below.

* Ineligible companies are those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients. The ACCME does not consider providers of clinical service directly to patients to be commercial interests.

For this educational activity there are no reported conflicts of interest



Case Introduction

- ▶ 43 y/o F with a significant history of PTSD, and anxiety and benzodiazepine dependance who presented for medication management of her mental health diagnoses.
- Primary question for discussion: What is the ethical/safest way to discontinue prescribing benzodiazepines for a patient with escalating use who fails to recognize a problem with their benzodiazepine abuse and who has had numerous trials of other psychotropic medications but fails due to side effects/lack of effectiveness?



Medical & Behavioral Health Diagnosis:

Current Medications:

- Irritable Bowel Syndrome
- Fatty Liver
- Traumatic Brain Injury
- Migraine headache
- Seizure disorder (NES)
- Anxiety disorder
- Nondependent Alcohol Abuse
- Post Traumatic Stress Disorder
- Attention Deficit Hyperactivity
- Fibromyalgia
- Chronic Back Pain
- Intracranial Hemorrhage
- Circadian Rhythm disorder

- Albuterol Inhaler
- Carisoprodol 250mg TID
- Clonazepam 2.5mg BID
- Diphenhydramine 100mg TID
- Lidocaine 5% patch once daily
- Linzess 2290 MCG cap one time daily
- Omeprazole 40mg one time daily
- Ondansetron 4mg q 8 hours
- Propanolol 20mg



Substance Use

- History: Began using benzodiazepines at 6 years old, was given grandmother's Valium
- Consequences of Substance Use:
 - Social/occupational/educational: Unemployed, married to her best friend to obtain insurance benefits and live in his apartment. Has degree in psychology did not pursue. DUI arrest in 2020
 - Physical (including evidence of tolerance/withdrawal): Participates in frantic seeking behaviors for refills of benzodiazepines. Begins to experience withdrawal symptoms within 8 hours of last dose. Has a pattern of early refills on her benzodiazepine prescriptions. Has seen multiple physicians in an attempt to gain additional/supplemental prescriptions
- Past treatments: Each psychiatrist she has seen attempts to taper.



Social History:

Family History:

- Social Factors/History: Mother with bipolar disorder/schizophrenia. Parents were emotionally, sexually and verbally abusive and neglectful she was placed in her grandparents home as a toddler. Grandmother began giving her Valium when she was 6 years old to help with her anxiety.
- Education/Literacy: College educated with a Bachelors in psychology.
- Income source: Currently on disability due to seizure disorder

- Mother with Bipolar disorder and "mild" schizophrenia.
- Brother with schizophrenia and ADHD
- Brother attempted suicide
- Aunt completed suicide



Patient strengths & protective factors:

Risk factors:

- Previously had positive outlets for coping
- Positive self image
- Resiliency
- Spirituality

- Limited social support
- History of Chronic Substance Abuse
- Not recognizing the substance abuse as a problem
- History of trauma
- LGBTQ+
- Currently limited coping skills
- Lack of structured activities



Labs

- ▶ 2019- Alcohol posivite 0.1
- ▶ 2019- Urine Drug Screen positive for benzodiazepines
- ▶ 2018- Urine Drug Screen positive for benzodiazepines



Patient Goals & Motivations for Treatment

- This patient does not recognize she has a benzodiazepine use disorder she believes the medication is the only thing that will help her mental health
- Goals for treatment are to decrease/abolish nightmares/flashbacks and to continue to use benzodiazepines



Proposed Diagnoses

- Benzodiazepine Use Disorder
- Post Traumatic Stress Disorder
- Panic Disorder



Proposed Treatment Plan

- Initiate treatment with a SSRI, likely duloxetine or desvenlafaxine
- Taper clonazepam 0.5 mg in 2 week increments with a goal to 0



Discussion:

Primary question: What is the ethical/safest way to discontinue prescribing benzodiazepines for a patient with escalating use who fails to recognize a problem with their benzodiazepine abuse and who has had numerous trials of other psychotropic medications but fails due to side effects/lack of effectiveness?



DSM-5 Substance Use Disorder ("Addiction")

- Tolerance
 Withdrawal

 Physical Dependence ≠ Use Disorder
- Larger amts/longer periods than intended
- Persistent desire/failed attempts to quit/control use
- Much time obtaining/using/recovering
- Important activities sacrificed
- Continued use despite known adverse effects
- Failure to fulfill major obligations
- Recurrent hazardous use
- Craving
- Ongoing use despite interpersonal problems

2-3 = mild

4-5 = moderate

 \geq 6 = severe



By initialing here _____ you have acknowledged that Project ECHO case consultations do not create or otherwise establish a provider-patient relationship between any ECHO clinician and any patient whose case is being presented in a teleECHO clinic.



Outpatient Benzodiazepine Withdrawal Management

Ritu Bhatnagar, MD MPH FASAM DFAPA February 17, 2023

Funding for this service was made possible by 435200-G-18-11448-285932-880 from Wisconsin Department of Health Services. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government or the State of Wisconsin.



Accreditation Statement:

In support of improving patient care, the University of Wisconsin–Madison ICEP is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

Credit Designation Statements

American Medical Association (AMA)

The University of Wisconsin–Madison ICEP designates this live activity for a maximum of 1 AMA PRA Category 1 CreditTM. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

American Nurses Credentialing Center (ANCC)

The University of Wisconsin–Madison ICEP designates this live activity for a maximum of 1 ANCC contact hour.

Accreditation Council for Pharmacy Education (ACPE)

The University of Wisconsin–Madison ICEP designates this knowledge-based activity for a maximum of 1.0 hours or 0.1 CEUs of CPE credit. Credit can be earned by successfully completing the activity and the evaluation. Credit will be provided to NABP CPE Monitor within 60 days after the activity completion.

2023 Universal Activity Number (UAN): JA0000358-0000-23-025-L01-P; JA0000358-0000-23-025-L01-T

Continuing Education Units

The University of Wisconsin–Madison ICEP, as a member of the University Professional & Continuing Education Association (UPCEA), authorizes this program for 0.1 continuing education units (CEUs) or 1 hour.

POLICY ON FACULTY AND SPONSOR DISCLOSURE

It is the policy of the University of Wisconsin–Madison Interprofessional Continuing Education Partnership (ICEP) to identify, mitigate and disclose all relevant financial relationships with ineligible companies* held by the speakers/presenters, authors, planners, and other persons who may influence content of this accredited continuing education (CE). In addition, speakers, presenters and authors must disclose any planned discussion of unlabeled/unapproved uses of drugs or devices during their presentation. For this accredited continuing education activity, all relevant financial relationships have been mitigated and detailed disclosures are listed below.

* Ineligible companies are those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients. The ACCME does not consider providers of clinical service directly to patients to be commercial interests.

For this educational activity there are no reported conflicts of interest



Objectives

At the conclusion of this presentation, the attendee will be able to:

- Describe need for benzodiazepine withdrawal (BZD w/d)
- Explain challenges encountered by pts during BZD w/d
- 3. Identify options for managing symptoms of BZD w/d for prescribers



Overview

- Circumstances where BZD taper is needed
- Difficulties for person undergoing taper
- Difficulties for prescriber guiding this person
- (and how to manage the last 2)



Scope of problem

- A 2019 study found that the number of BZD prescriptions in the U.S. increased by about 50 percent between 2005 to 2015
 - most of the prescriptions from Family Practice Providers.
- Fatality increases with current wave of opioid epidemic with polysubstance impact on respiratory depression
 - Overdoses with BZD increased most in women 30-64 y.o. b/w 1996 to 2017 (CDC)

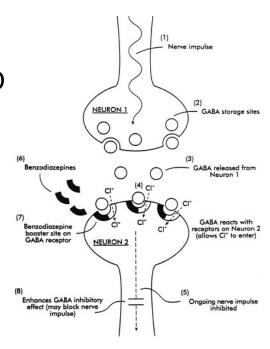
Agarwal S et al, 2019. Patterns in Outpatient Benzodiazepine Prescribing in the United States. https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2722576



Acute and chronic effects of BZD

- Acute: GABA-A agonism
- Increase GABA in the brain, bind to receptors, promote calm
 - CNS depression
- Chronic: neuro-adaptation occurs
 - down regulation of GABA receptors
 - d/t exogenous supply of GABA from BZD

Ashton manual https://benzo.org.uk/manual/





Dangers of sudden cessation

- Longer than 4 weeks, likely to note some w/d
- Similar to alcohol effects in brain
- GABA receptors down regulated
- ▶ No GABA = unopposed glutamate
- Brain (and person) in sympathetic overloaded state
- ▶ Increased anxiety → confusion/ paranoia/ psychosis
- Seizures
- ? Death



Why taper BZD?

- Person wants to taper
 - Not like dependence/ reliance on medical system for refills
 - Side effects/ increasing tolerance over time
- Prescriber wants to taper
 - Safety concern with alcohol/ opioids/ meds
 - Falls/ dementia
 - Driving impairment
 - Increased mortality with long term use
 - Misuse
 - Diversion

Brett J et al, 2015. Management of Benzodiazepine Misuse and Diversion. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4657308/



Who initiates?

- Careful review of medications and their need annually
- Monitor closely
- Always check PDMP/ use patterns
- Ensure buy-in before proceeding with taper: MI
 - Without this, lack of honest interactions/ "firing"
 - Takes time
 - Consider additional supports available therapy/ family



Duration of symptoms

- Varies extensively
- ▶ BZD concentrations in the blood have been measured and shown to reach undetectable levels in 3-4 weeks after cessation

Ashton manual https://benzo.org.uk/manual/



Protracted withdrawal

Symptoms	Usual Course
Anxiety	- Gradually diminishing over a year
Depression	- May last a few months; responds to antidepressant drugs
Insomnia	- Gradually diminishing over 6-12 months
Sensory symptoms: tinnitus, tingling, numbness, deep or burning pain in limbs, feeling of inner trembling or vibration, strange skin sensations	- Gradually receding but may last at least a year and occasionally several years
Motor symptoms: muscle pain, weakness, painful cramps, tremor, jerks, spasms, shaking attacks	- Gradually receding but may last at least a year and occasionally several years
Poor memory and cognition	- Gradually receding but may last at least a year and occasionally several years
Gastrointestinal symptoms	- Gradually improving but may last a year and occasionally several years





Challenges and what to do

Increased anxiety
Tremors, sweating
Increased HR
Agoraphobia
Muscle tension
Hypertension
Loss of appetite/ nausea
Diarrhea
Tingling in hands/feet
Depression
Difficulty focusing
Sleep disturbance

Slow taper

Valproic acid *
Clonidine *
Hydroxyzine *
Trazodone *
Gabapentin *
Baclofen? *
Tizanidine? *
SSRIs
Low inflammatory foods *

(* off-label, symptom relief driven approaches to minimize sympathetic overload, stabilize cellular and physical distress)



Tapering strategies

- Convert short acting BZD (like alprazolam) to long acting BZD (like clonazepam)
- Dose converter: https://clincalc.com/Benzodiazepine/
- ▶ Taper by 5-10% every 1-2 weeks as tolerated.
- Adjunctive medications important/ useful
 - Seizure precautions with short-term Valproic acid
 - Sx driven approaches
- More frequent visits/ shorter duration of refills
 - Engage family members to help with dispensing meds
- Increase/ add therapy support
- Check PDMP



Flumazenil

- GABA-A antagonist
- Low dose flumazenil for BZD detox:
- low-dose subcutaneous flumazenil infusions (4 mg/24 h for approx. 8 days)
- ▶ Abstinence at 3 mos. b/w 46 and 61%
- For high dose BZD use (>30 mg diazepam eq)
- Speaks to challenges of remaining BZD free

(MacDonald et all, 2022. Outcomes of patients treated with low-dose flumazenil for benzodiazepine detoxification: A description of 26 participants. https://doi.org/10.1016/j.drugalcdep.2022.109517)



Ways to increase GABA without BZD?

- Exercise cardio, anyone?
- Yoga
- Meditation/ mindfulness (free online resources abound: Headspace, Calm, insight, Healthy Minds App, mindfulrp.com)
- ▶ EFT / acupressure/ acupuncture/ somatic therapies
- Supplements like Magnesium, B6, Zinc can help with adaptogenic support
- Reduce environmental stresses



Caveats

- Not all supplements are equal (or equally safe!)
- Lavender oil (fair evidence)
- ► GABA foods? (unclear bioavailability)

 [https://www.ororecovery.com/ways-to-increase-gaba-naturally-for-anxiety-without-benzos/]
- Phenibut, or beta-phenyl-gamma-aminobutyric acid Hcl, = designer GABA analogue
 - Abusable, can lead to dependence
 - Available online easily



Conclusions

- ▶ BZD tapering as outpt is possible
- Discuss/ agree to rationale before tapering
- Monitor closely
- Support sxs as they emerge
 - be patient with process
- Engage other modalities
- Consider other options for anxiety management to avoid needing to taper in the future!



DSM-5 Substance Use Disorder ("Addiction")

- Tolerance
- Physical Dependence ≠ Use Disorder
- Withdrawal
- Larger amts/longer periods than intended
- Persistent desire/failed attempts to quit/control use
- Much time obtaining/using/recovering
- Important activities sacrificed
- Continued use despite known adverse effects
- Failure to fulfill major obligations
- Recurrent hazardous use
- Craving
- Ongoing use despite interpersonal problems

2-3 = mild

4-5 = moderate

 \geq 6 = severe

