ACCEPT

Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics

How to Join:
https://iecho.org/public/program/PRGM1708646970665RHK0C7J5TR

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

Session Date: Friday, October 18, 2024

Didactic Topic and Presenter:
Top 10 Lessons Learned Using Long Acting Injectable Buprenorphine within the WI-DOC

Alison Miller, DO
Wisconsin - Department of Corrections

Content Experts: Sheila Weix and Joe Galey

- 12:15 PM: Attendance text-in – Introductions
- 12:25 PM: Case Presentation
  - Presenter: Kellene (Kelly) Eagen, MD - Assistant Professor, Department of Family Medicine and Community Health, Associate Program Director, Addiction Medicine Fellowship
- 1 PM: Didactic Presentation
  - Presenter: Alison Miller, DO
- 1:15 PM End of Session

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Interprofessional Continuing Education Partnership
UNIVERSITY OF WISCONSIN–MADISON
School of Medicine and Public Health
School of Nursing
School of Pharmacy

WISCONSIN DEPARTMENT of HEALTH SERVICES

- **CONTINUING EDUCATION INFORMATION:**

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2024 Universal Activity Number (UAN): JA0000358-0000-24-009-L01-P; JA0000358-0000-24-009-L01-T

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Medication Access and Training Expansion Act (MATE)

This session is designed to meet the requirements outlined in the Medication Access and Training Expansion (MATE) Act. (Click here for more information.) Number of hours: 1

ECHO ACCEPT
Addiction & Co-morbid Conditions: Enhancing Prevention & Therapeutics
2024-2025

Top 10 Lessons Learned Using Long Acting Injectable Buprenorphine within the WI-DOC

10/18/2024
Didactic Presenter: Alison Miller, DO
Case Presenter: Kelly Eagen, MD

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 the benefits of Long Acting Injectable Buprenorphine
2. Apply tips and Tricks on Dosing and Administration of Long Acting Injectable Buprenorphine
3. Implement appropriate substance use prescribing and monitoring practices in an ethical fashion

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 ineligible companies.*

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	1/29/2024
Nada Rashid	RSS Coordinator	No relevant financial relationships to disclose	No	2/5/2024
Kathleen Maher	RSS Coordinator	No relevant financial relationships to disclose	No	2/6/2024
Ritu Bhatnagar	Planner	No relevant financial relationships to disclose	Yes	2/8/2024
Paul Hutson	Planner	No relevant financial relationships to disclose	Yes	1/29/2024
Susan Mindock	Planner	No relevant financial relationships to disclose	No	1/29/2024
Sheila Weix	Planner	No relevant financial relationships to disclose	No	2/9/2024
Kellene Eagen	Planner	No relevant financial relationships to disclose	No	1/29/2024
Joseph Galey	Planner	No relevant financial relationships to disclose	No	2/13/2024
David Leinweber	Planner	No relevant financial relationships to disclose	Yes	1/20/2024

Kelly Eagen	Presenter/Reviewer	No relevant financial relationships to disclose	Yes	10/1/2024
Alison Miller	Presenter	No relevant financial relationships to disclose	No	10/4/2024

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Top 10 Lessons Learned
Using LAI Buprenorphine

Alison Miller, DO
Wisconsin - Department of Corrections

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OVERVIEW:

WI Department of Correction (DOC)
Jan 2024 started continuation of MOUD at intake
MSDF – Milwaukee Secure Detention Facility
Men and Women
9 Floors with an elevator
Arrival from the community – Probation & Parole
Length of stay unpredictable
High rates of overdose in region

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#1 – Plunger HOLD

1. After needle is inserted. Release the skin. Slowly press down plunger until it latches into safety device wings. Keep plunger pressed down fully for an additional 2 seconds - Hold for 4 seconds
2. Remove safety needle and syringe from skin.
3. Keep plunger fully depressed while lifting needle out
4. Remove thumb from plunger for guard to cover needle

Figure 9

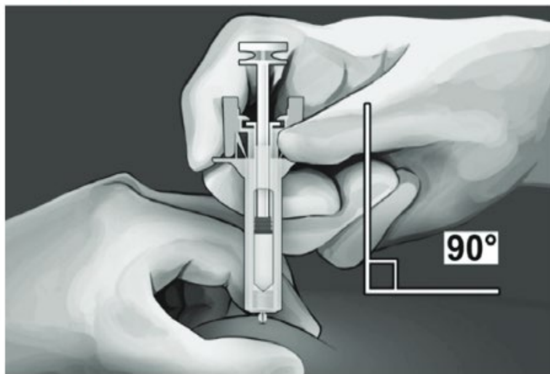


Figure 10

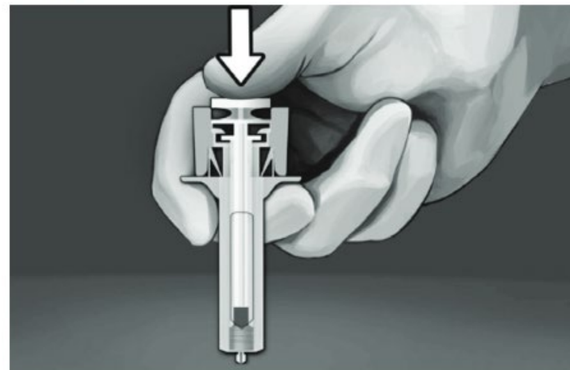
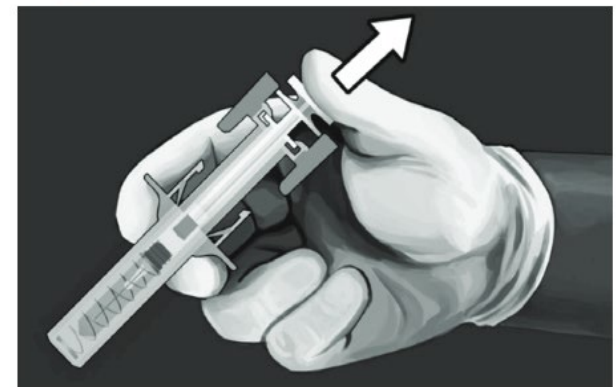


Figure 12



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2 – No Numbing Needed

Needle size:
23 G

Small injection
volume (≤0.64 mL)

Multiple subcutaneous
injection sites†

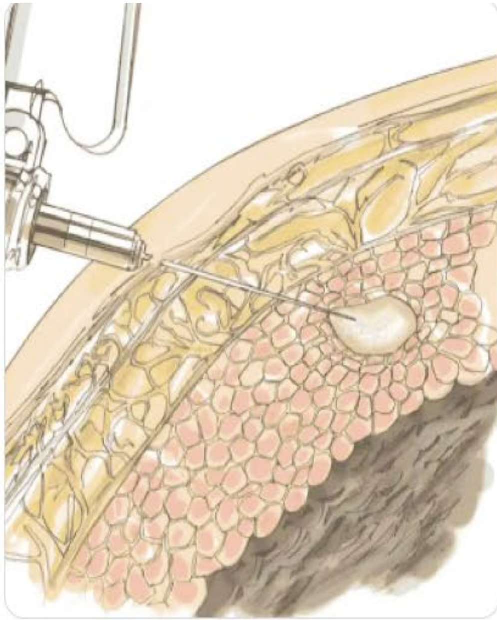
No refrigeration

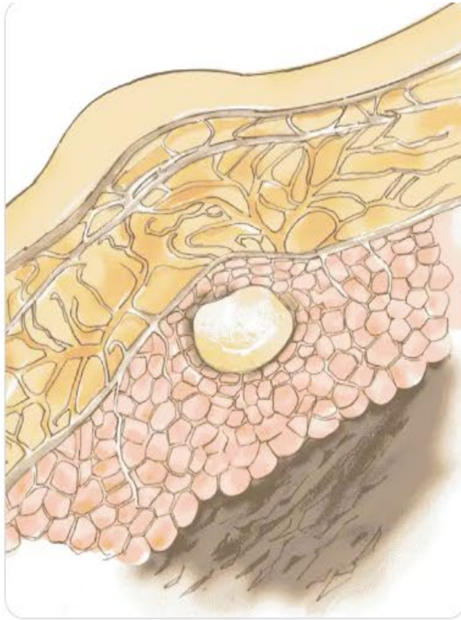
#3 – Injection Side Effects

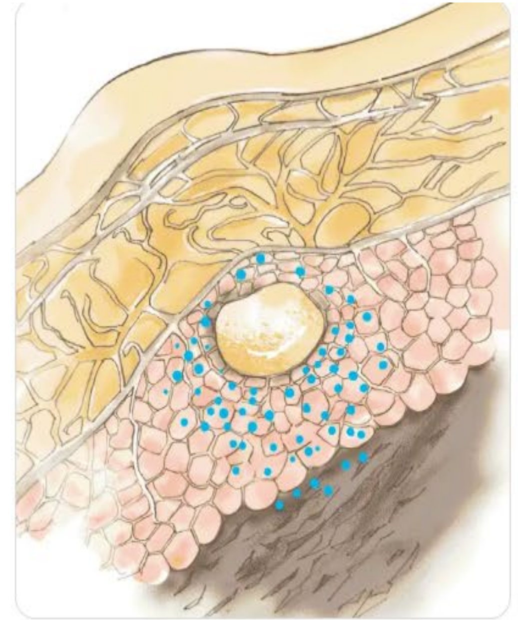
- Injection site reactions 20%
- Body Aches 9.4%
- Constipation 7.5%
- Nausea 7.0%
- Vomiting 4.2 %
- Insomnia 5.6%
- Headache 7.5%

Preferred Term*	E[illegible]l Total† (N=213) N (%)	SL BPN/NX‡ (N=215) N (%)
Administration Site Reactions§	**44 (20.7%)**	**49 (22.8%)**
Injection site pain	21 (9.9%)	17 (7.9%)
Injection site erythema	14 (6.6%)	12 (5.6%)
Injection site pruritus	13 (6.1%)	13 (6.0%)
Injection site swelling	10 (4.7%)	7 (3.3%)
Injection site reaction	9 (4.2%)	7 (3.3%)

4 The First 24 Hours ….





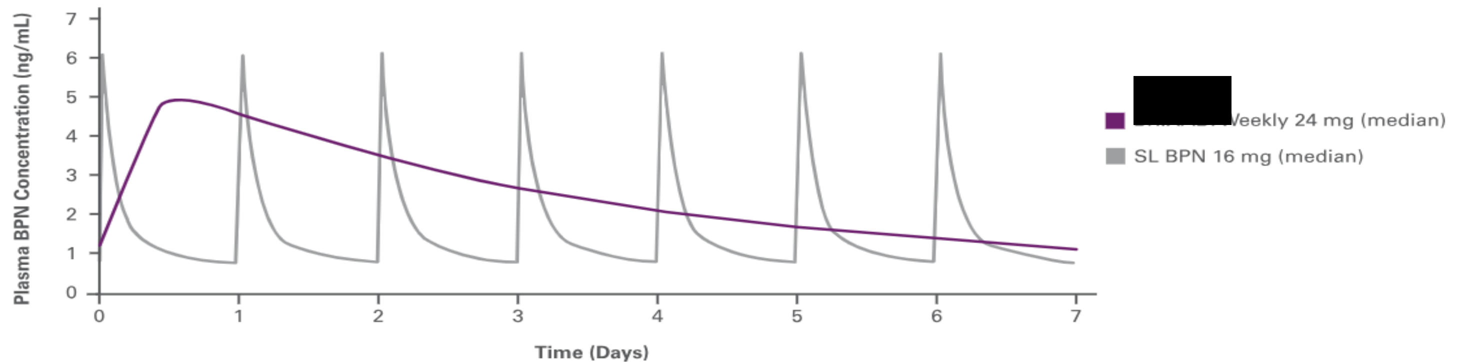


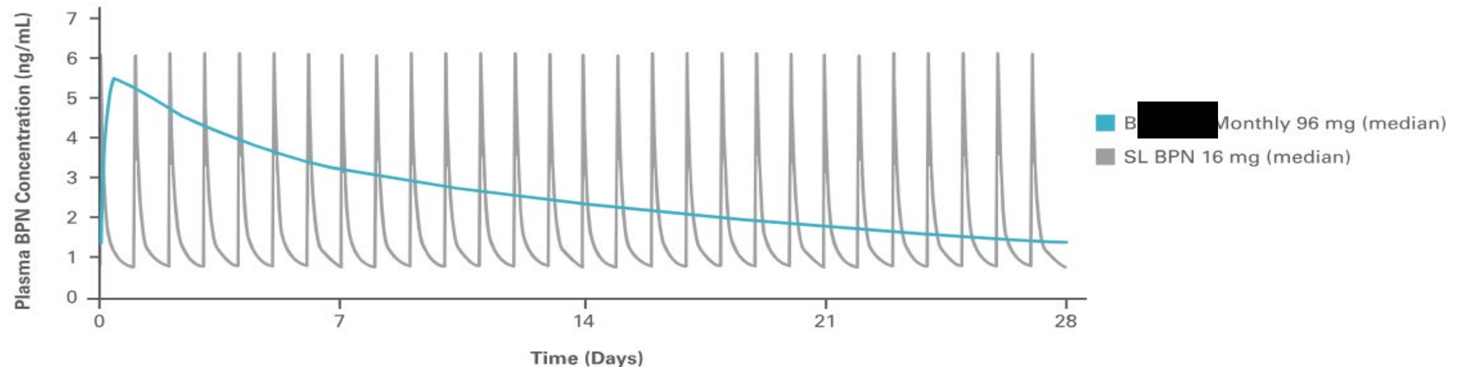
#5 Half-Life

Weekly - buprenorphine is 3–5 days

Monthly – buprenorphine is 19-26 days

Steady State – 4 injections





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#6 Long Tail and Urine Testing

- Brixadi stays in urine for 4-5 half lives
- Sublocade is longer
- Testing of PIOCs by security for Buprenorphine/Norbuprenorphine have been positive at other facilities
- Ordering Urine Naloxone if needed

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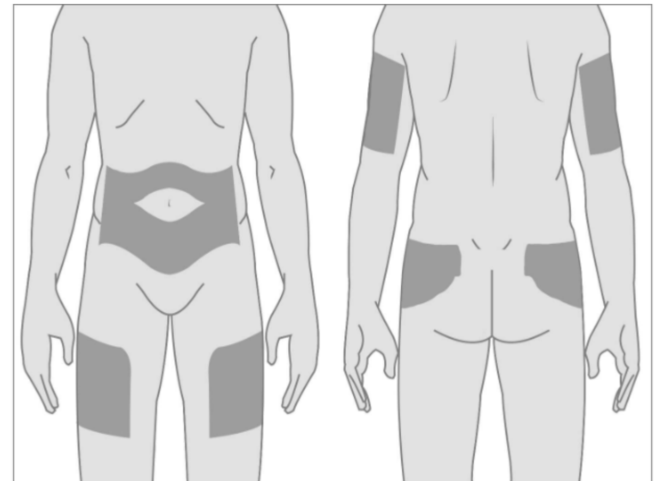
7 Multiple Sites

DO NOT USE ARM FOR FIRST FOUR INJECTIONS

Plasma concentrations are ≈ 10% lower when buprenorphine ER is injected into the upper arm compared with other injection sites



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#8 Dosing & Cost

Daily Sublingual Buprenorphine Dose*	Weekly	Monthly
≤6 mg	8 mg	-
8-10 mg	16 mg	64 mg
12-16 mg	24 mg	96 mg
18-24 mg	32 mg	128 mg

*One SUBOXONE® (buprenorphine and naloxone) 8 mg/2 mg sublingual tablet provides equivalent buprenorphine exposure to one SUBUTEX® (buprenorphine HCl) 8 mg sublingual tablet or one Zubsolv® (buprenorphine and naloxone) 5.7 mg/1.4 mg sublingual tablet.[1]

9 – The Fluid Crystalline Depot and Cap

Brixadi Cap – made from natural latex – DO NOT USE in LATEX ALLERGY

Weekly Brixadi – alcohol based depot OK to use during Pregnancy – Class C

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10 – Decreased Diversion

Improves adherence

Decreases misuse and diversion

October 1, 2024

Treated 74 PIOCs with LAI Buprenorphine

NO DIVERSION

NO OVERDOSES in FACILITY

Case Presentation

Kelly Eagen, MD
UW Hospitals and Clinics

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Case Introduction

- One-liner (including age/sex):
  - 50y female with opioid use disorder in sustained remission on buprenorphine, severe methamphetamine use disorder, cocaine use disorder, alcohol use disorder, anxiety, depression trauma and possible ADHD.

- Primary question for discussion:
  - How to optimize management of stimulant (methamphetamine and cocaine) use disorder, possible ADHD, depression and anxiety.

Medical & Behavioral Health Diagnosis:	Current Medications:
• Opioid use disorder, severe in sustained remission • Methamphetamine use disorder, severe • Cocaine use disorder, severity not specified • Alcohol use disorder, severe • PTSD • Possible ADHD (diagnoses vary provider-to-provider) • Possible borderline personality disorder (per old notes) • Delusional paracytosis • h/o soft tissue infections requiring antibiotics, I&D, wound vac, hospitalization • h/o HCV s/p cure	• Buprenorphine-naloxone 8-2 mg TID • Buproprion 300 mg XL daily • Venlafaxine 300 mg ER daily • Gabapentin 600 mg TID • Naloxone prn

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Substance Use

- History:
  - Opioid: Initial opioid use (pills) in 20's progressed to heroin over years, past IDU. Last opioid use > 2 years prior.
  - Alcohol: heavier with more negative consequences in past, currently drinks most days, ~ 3-4 standard drinks liquor.
  - Methamphetamine: 1-2 times inhaled per week. Reports using for energy and focus, when she needs to get something done, when very depressed.
  - Crack cocaine: 0-2 times per week intranasal. Typically use in presence of others using.
- Consequences of Substance Use:
  - Social/occupational/educational:
    - Mood disturbances/depression/anxiety, psychosis
    - Loss of employment/housing, relationship conflict with children and father
    - Poor self esteem
  - Physical (including evidence of tolerance/withdrawal):
    - Alcohol: anxiety with withdrawal

Substance Use

- Past treatments:
  - Opioid:
    - Current: buprenorphine (24 mg/day)
    - Past: methadone
  - Alcohol:
    - Current: gabapentin 600 mg TID
    - Past: naltrexone (now contraindicated on bup), acamprosate (GI side effects), topiramate (mental dulling)
  - Methamphetamine/cocaine:
    - Current: buproprion 300 mg (prescribed for depression)
    - Past: topiramate (unclear if prescribed for alcohol or stimulants)
  - Behavioral:
    - Current: weekly counseling, peer specialist, CCS case manager
    - Past: residential, DBT (extensive with positive response)

Mental Health history

- Reports depression and anxiety in childhood
- History of physical abuse and sexual assault --> PTDS
- ? ADHD - Has seen various psychiatrists with differing conclusions
  - Per notes no report of sx in childhood
  - Per pt, treated extensively with stimulants in CO (no records found)
  - Per community psychiatrist, ADHD treated with lisdexamphetamine 50 mg. Per pt good response.
  - Per consulting psych, inattention sx could be due to trauma, stimulant use.

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Social History:	Family History:
• Social Factors/History: ○ From WI, spent many years in CO. Relocated back to WI 2017 to live closer to young adult children with whom she has strained relationship. ○ Homelessness as of 2020, then at Rehab Center. ○ Permanent single room occupancy through affordable housing organization 2024. ○ History of incarceration. • Education/Literacy: graduated HS. Some college credits, no degree. • Income source: SSI denied, appeal pending. No current employment.	• Extensive alcohol use disorder • Mental health disorders

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Patient strengths & protective factors:	Risk factors:
• Engaged in care • Attends appointments consistently • Collaborative, transparent • Artistic (beads, draws/paints) • Hobbies (reading, journaling) • Motivated to improve her mental health and relationship with children • Personable, witty	• Trauma, history of physical abuse and sexual assault • Strained family relationships • Strong family history of SUDs and mental health disorders • Social isolation • Housing proximity to substance use

Labs

- Last confirmatory drug screen (10/10/2024)
  - + bup, norbup, naloxone
  - + amphetamines, methamphetamines
  - + benzoylecgonine
  - + nordiazepam (denies use, not present previously)
- August 2024 (at ED) ethanol: not detected
- July 2024: AST/ALT 53/28
- June 2024: HIV Ag/Ab nonreactive, HCV RNA not detected

Patient Goals & Motivations for Treatment

- Motivated to improve:
  - Mental health
  - Relationship with children
  - Seek employment
  - Move out of SRO
- Desires to demonstrate abstinence feeling this would again qualify her for prescribed stimulants which she reports being highly effective for ADHD in the past.

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Proposed Diagnoses

- OUD, severe in sustained remission
- Methamphetamine and cocaine use disorders
- Alcohol use disorder
- Depression, anxiety, PTSD
- Delusional paracytosis
- ? ADHD

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Proposed Treatment Plan

- Continue buprenorphine 8-2 mg TID.
- Attempt to get patient to reconnect to psychiatric provider?
- Consider long-acting prescribed stimulant with clear expectations around:
  - Continuation contingent on continued engagement with ADM provider, regular urine drug testing, continued work with community CM, therapist, possible DBT if able, goal to improve functioning in community (ie. Seek employment, engage in additional SUD treatment)
  - Discontinue if ongoing regular unprescribed stimulant use, worsening of psychosis, cardiovascular concerns or other negative side effects
- Re-visit psychotropics for anxiety and depression

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Discussion:

- Primary question:
  - How to optimize management of stimulant (methamphetamine and cocaine) use disorder, possible ADHD, depression and anxiety.

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
≥ 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.

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