Updates from the Maine Opioid Response Clinical Advisory Committee

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On behalf of Maine's Opioid Response Clinical Advisory Committee

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Conflicts of Interest

- We have no conflicts of interest or disclosures

Objectives

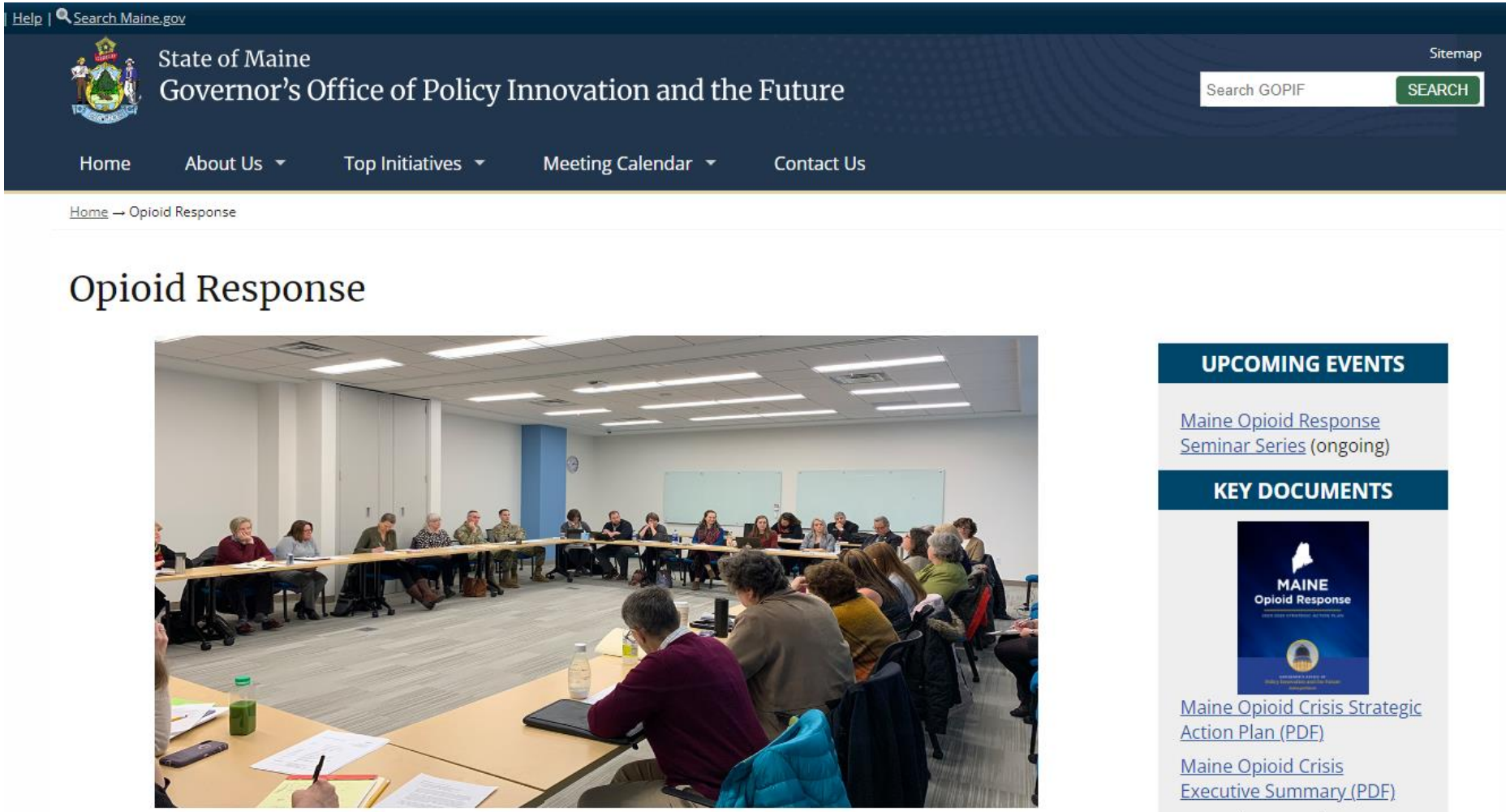
- Provide a brief overview of the Maine Opioid Response Clinical Advisory Committee
- Describe the evidence for, and patient and provider perspectives, regarding the use of MOUD in the hospital settings
- Promote understanding of how these perspectives and evidence translate in the Maine Opioid Response Clinical Advisory Committee's guidance for basic and advanced levels of care for patients with OUD in the inpatient hospital setting
- Review best evidence and expert opinion on ambulatory withdrawal management for alcohol use disorder (and briefly for opioid use disorder)

What is the Maine Opioid Response Clinical Advisory Committee?

- Established in 2019 to provide expert clinical advice to inform the state's Opioid Response Strategic Action Plan
- Provides guidance as well to clinicians, on topics ranging from stimulant use disorder to fentanyl toxicology testing to withdrawal management
- All guidance documents available online
- Co-chaired by Alane O'Connor, DNP; and Lisa Letourneau, MD, MPH

Maine Opioid Response Clinical Advisory Committee

https://www.maine.gov/future/opioids



Maine Opioid Response Clinical Advisory Committee

https://www.maine.gov/future/opioids/clinical-advisory-committee

Why Focus on Hospitals?

Decreased overdose deaths and morbidity:

- 1 in 9 patients in hospital have substance use disorder (SUD), and most are not being treated
- Individuals seeking care at hospitals are at increased risk of drug overdose death:
  - Approximately 17% of Maine fatal overdose decedents had evidence of hospital inpatient stay or emergency department (ED) visit within 30 days prior to their death
  - In Oregon, 7.8% of patients with OUD died within 1 year after hospital discharge (similar mortality to acute MI)

Why Focus on Hospitals?

Decreased overdose deaths and morbidity:

- Medications for opioid use disorder (MOUD) shown to be highly effective in decreasing overdose deaths
- Patients treated with MOUD in ED less likely to use illicit drugs and more than twice as likely to be in MOUD treatment at 30 day follow up
- Individuals on MOUD on hospital admission have 30 day & 90 day hospital readmission rates 53% and 43% lower than those with untreated OUD

Why Focus on Hospitals?

Avoid harms of NOT addressing OUD in hospitals include:

- Untreated withdrawal symptoms
- Untreated pain:
  - Reluctance to treat pain adequately for fear it will "exacerbate" opioid use disorder
- Frequent patient-directed discharges
- Moral distress for patients and staff:
  - Chaotic, reactive interactions with patients
  - Variable care quality
  - Feelings of futility by providers

Why Focus on Hospitals?

Hospitalization as “reachable moment” for patients and staff alike:

- Hospital-based SUD care has been shown to:
  - Improve trust in providers and providers’ feelings of preparedness and satisfaction
  - Improve patient experience
  - Increase adoption of evidence-based treatment
  - Increase engagement in post-discharge SUD treatment
  - Reduce SUD severity
  - Reduce death
  - Increase likelihood that *other* hospital care will be trauma-informed and meet comprehensive health needs of people, i.e.. “treatment changes culture”

Why Focus on Hospitals?

Case Presentation 1:

- ER Visit (May 2022): 28yo female with h/o OUD, PTSD, homelessness presents to ED with abscess, concern from friend about OUD. ED treated pt with IV abx, and notes “we counseled her on hazards of drug abuse. We did throw out her drug paraphernalia in accordance with hospital policy. Patient did become very upset when this was disposed of.” Pt was instructed to f/u with PCP
- Inpatient Admit (September 2022): Pt admitted with cough, pleuritic chest pain, daily use of heroin/fentanyl, injected. CXR showed early airspace disease. Pt self-directed discharge the day after admission. Was told to follow up with her PCP regarding pending blood cultures
- Inpatient Admit (October 2022): Pt admitted with “pain and swelling of right lower arm due to iv drug use for weeks.” Found to have abscess requiring formal debridement and irrigation in OR. Two days earlier, she had self-directed discharge from another local hospital because they were “mean.” Patient completed procedure, then self-directed discharge on post-op day one, to homelessness. Seen one week later by experienced Street Medicine Provider, who provided wound care and initiated MOUD (buprenorphine/naloxone) for patient
- Inpatient Admit (December 2022): Pt admitted with chest pain, shortness of breath, shaking chills, hypotension. Diagnosed with bacteremia, sepsis. Patient and mother advocated strongly that her suboxone be continued while she was an inpatient. The hospital team declined, stating that if she was on MOUD, they could not find evidence of it. Five days passed. Patient’s mother worked with outpatient provider, brought prescription for suboxone to patient in hospital, with hope that they would dispense it to her. Hospital team eventually provided her suboxone. Throughout hospitalization, patient “red-flagged” as individual with OUD and must have restricted visitors

Why Focus on Hospitals?

Case Presentation 2:

- 52yo female with h/o PTSD, bipolar disorder admitted with MRSA bacteremia and pelvic abscess. Was initiated on suboxone during her admission, which was continued by outpatient MOUD provider upon discharge
- Re-admitted one month later with septic arthritis of hip. Received hip resection arthroplasty. Suboxone continued during hospitalization
- Pain management difficult during hospitalization, and team attempted to manage it, documenting risk of recurrence of use on discharge if pain not well-managed
- Discharged to home, still on suboxone, though with limited mobility and lives 2 hours from her outpatient MOUD provider, who was not contacted about her discharge
- After discharge, MOUD provider coordinated with surgeon regarding pain management. Surgeon recommended oxycodone 7.5mg q4 hours prn, saying “this isn’t going to touch her pain”
- For ensuing weeks, outpatient team attempted to manage pain and MOUD via telehealth visits, limited by internet connectivity, as well as home health RN who advised patient that suboxone was interfering with her pain medications

Why Focus on Hospitals?

Case Presentation 3:

- 79yo male, h/o OUD (prescription opioids) stable on 8mg suboxone for 10+ years
- Admitted to hospital in Summer 2022 with hip fracture, s/p ORIF. Suboxone was stopped during hospitalization, discharged to SNF on oxycodone; rationale was that no SNF would accept pt on suboxone. Was in acute withdrawal in SNF; re-started on suboxone by SNF provider
- Once home, became bored, depressed, started drinking heavily
- Early 2023, suffered CVA, again admitted to hospital. Suboxone stopped again, again with rationale that he could not access SNF while on suboxone, and that "his real problem is his alcohol use." He was not offered medications for alcohol use disorder in the hospital
- Presented to SNF in acute withdrawal, but was resistant to re-starting suboxone: "The doctor in the hospital told me I don't need it"
- Attending provider at SNF gradually was able to convince patient to re-start suboxone; also provided medication for alcohol use disorder

Enhancing Access to MOUD in Hospitals

- Recommendations from Maine Opioid Response Clinical Advisory Committee
- Group of 40+ clinicians with OUD expertise from around state
- Reviewed literature, solicited input from national experts
- Developed guidance document in effort to promote awareness and education with hospital-based clinicians statewide

Enhancing Access to MOUD in Hospitals

- Propose that all Maine hospitals should provide at least basic level of care to patients with OUD
- Also recognize that some hospitals able to provide more advanced level of care
- Also provided policy recommendations, variety of helpful resources for providers

MOUD in Hospitals: Basic Level of Care

- Annual training and education about SUDs and stigma for all members of its staff
- Process to identify high risk individuals (both inpatient and in ED) including patients who:
  - Are opioid intoxicated/post-overdose or in opioid withdrawal
  - Have pain that is unusually difficult to manage
  - Have SUD-related complications such as endocarditis, osteomyelitis, sepsis, etc.
  - Request treatment of a SUD
- Toxicology screening that is consistent with substances seen in community and provider knowledge of how to interpret findings

MOUD in Hospitals: Basic Level of Care

- Buprenorphine available on hospital formulary
- Buprenorphine initiation available in both ED and inpatient hospital setting (X-waiver no longer required)
- Evidence-based best practices for treating patients on MOUD including:
  - MOUD should not be discontinued unless there is clear contraindication to use of MOUD
  - Pain management sensitive to unique needs of patients with OUD
  - Direct linkage to buprenorphine prescriber at hospital discharge including scheduled appointment
  - Referrals to post-acute care facilities (e.g., skilled nursing facilities, nursing homes) that provide ongoing treatment with MOUD
  - Naloxone kit in hand at discharge
- Wrap around services for individuals with OUD as appropriate (e.g., peer support, harm reduction, etc.)

MOUD in Hospitals: Advanced Level of Care

- Provide Basic Level of care, plus…
- Commitment to educate learners and providers in training about full spectrum of SUD care
- Protocols and resources to utilize extended-release buprenorphine (XRB) in ED and inpatient setting
- Integrated inpatient care management and peer support
- Initiation of MOUD using methadone in inpatient setting

Common Concerns

- It’s illegal to provide MOUD in the hospital, especially methadone
  - Provider may maintain patients on methadone from an OTP; and may initiate methadone and create transition plan to OTP on discharge
- It’s dangerous to start/maintain MOUD if there is no plan at discharge
  - Begin discharge planning early, just as you would for another treatable chronic condition
  - Establish referral pathway as “basic” level of care
  - Low-barrier telehealth MOUD treatment options increasingly available

Common Concerns (cont'd)

- We don't have the clinical expertise
  - Multiple resources in Maine for clinician education (ECHO, ME SUD Learning Community), as well as national resources (e.g. CA Bridge, OHSU Toolkit)
  - Create protocols, pathways and orders sets in Electronic Health Record
  - Build in as provider incentive
  - Access to warm consult/on-call expert?
- We don't have the staff for an addiction consult team:
  - Multiple models exist, from inpatient consult teams to hospitalist-based opioid treatment (see Taxonomy article in References)

Common Concerns (cont'd)

- There isn't a clear financial return on investment
  - Many inpatient consult services don't directly save money
  - Policies that provide incentives for good care delivery do provide an ROI, as do new reimbursement models
- It's too hard to do this on my own as a well-intended clinician
  - Agreed! Health systems need to be part of solution
  - Quality measures could include provision of MOUD, identifying discontinuation of MOUD as a "never event"
  - In other states, larger hospitals build up capacity, then serve as community assets, consultants to other hospitals

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Opioid Clinical Advisory Committee: Proposed Position on Supervised Withdrawal Management

Key Points

Systems-Level Recommendations:

- Expand low-barrier access to the right level of care, with quality measurement
- Focus on developing and retaining the workforce

Clinical Recommendations:

- Upskills clinicians in alcohol withdrawal management, particularly in ambulatory setting
- Updates clinicians on emerging protocols for opioid withdrawal management, especially in fentanyl era

Note: Tight focus in this document (2 substances, no “special populations”)

Expanding Low-Barrier Access to WM

Develop Comprehensive Services using ASAM Criteria

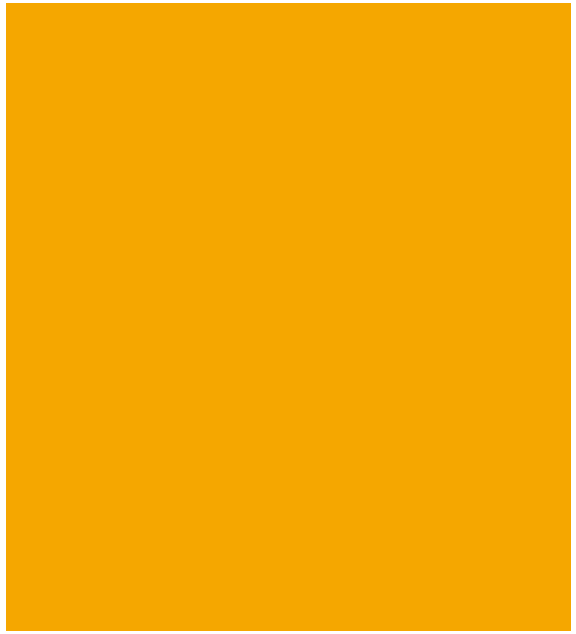
Level of Care	ASAM Definition	Practice Setting(s)
1.7	Ambulatory Withdrawal Management **Without** Extended On-Site Monitoring	Primary Care
2.7	Ambulatory Withdrawal Management **With** Extended On-Site Monitoring	Outpatient SUD Treatment Partial Hospitalization Some Primary Care
3.7	Medically Monitored Inpatient Withdrawal Management	"Detox"

Individuals can "step up" or "step down" level of care as indicated

Systems Design and Workforce Development

- Provide same-day, multi-modal access
- Monitor supply and demand
- Integrate treatment services during withdrawal management and upon discharge
- Develop quality measures and CQI
- Provide ongoing learning regarding withdrawal management for *all* staff (ECHO, webinars, just-in-time expert consultation)
- Require "Clinical Supervision" for *all* staff
- Develop and provide adequate, novel, nimble reimbursement models

Alcohol Withdrawal Management



Withdrawal = Disequilibrium

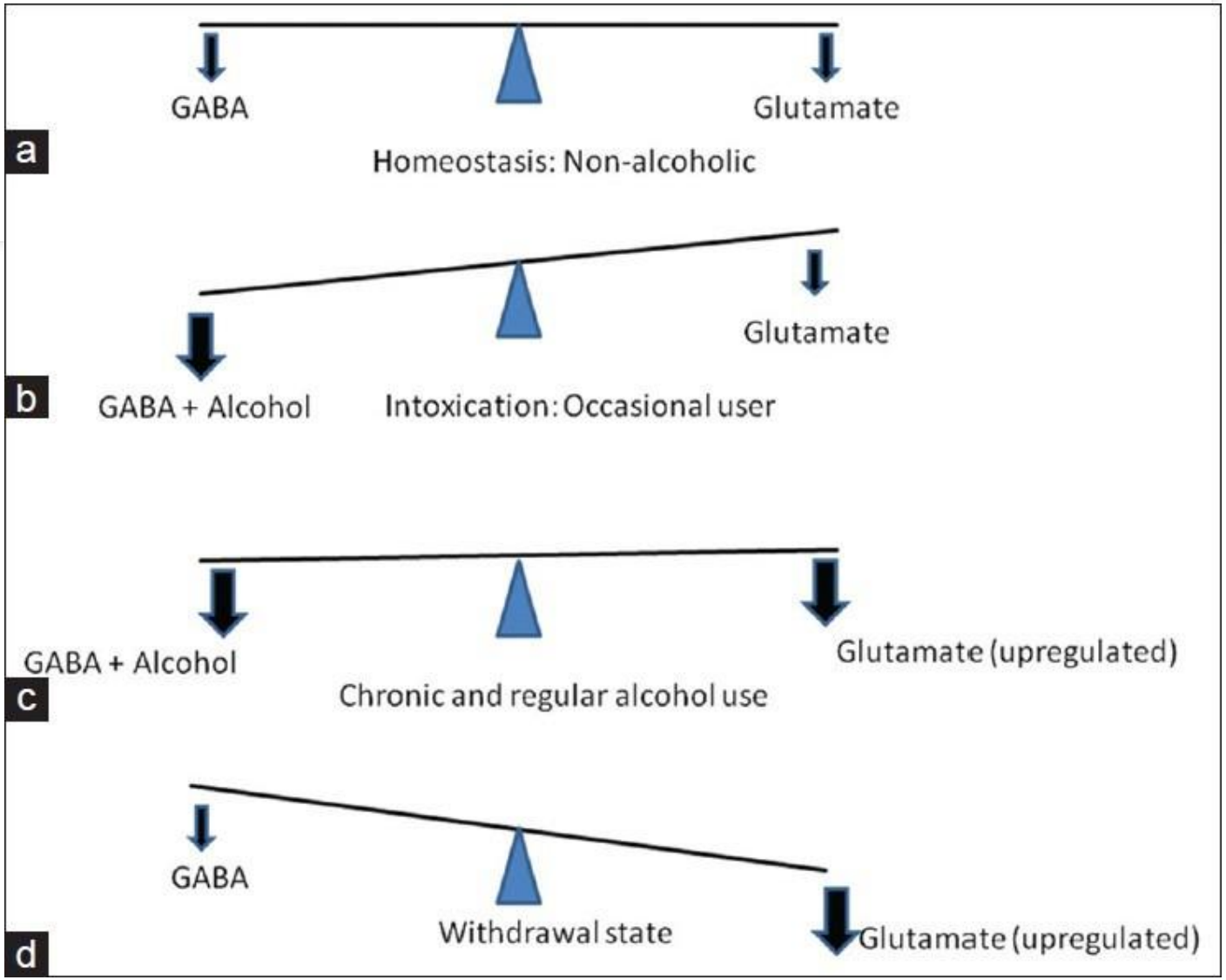
A: GABA (inhibitory) in balance with glutamate (excitatory)

B: EtOH facilitates GABA action, causes CNS depression

C: Chronic use:

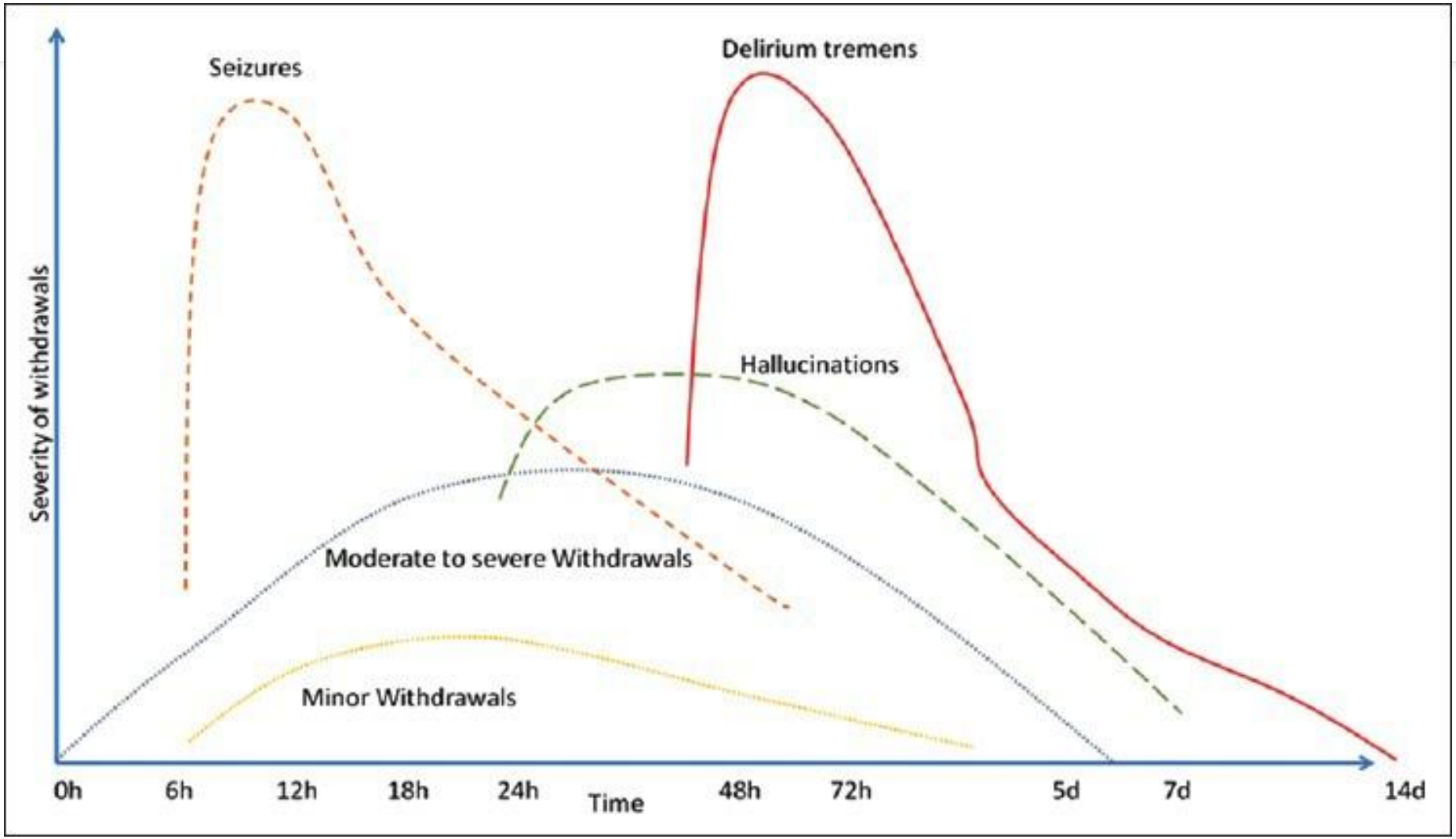
- Down-regulates GABA receptors -> need more EtOH (tolerance)
- Upregulates NMDA receptors/more glutamate to maintain balance

D: Sudden cessation of EtOH -> unopposed CNS excitation



Littleton 1998
Kittamani 2013

Time Course of Withdrawal Symptoms



Kattimani 2013

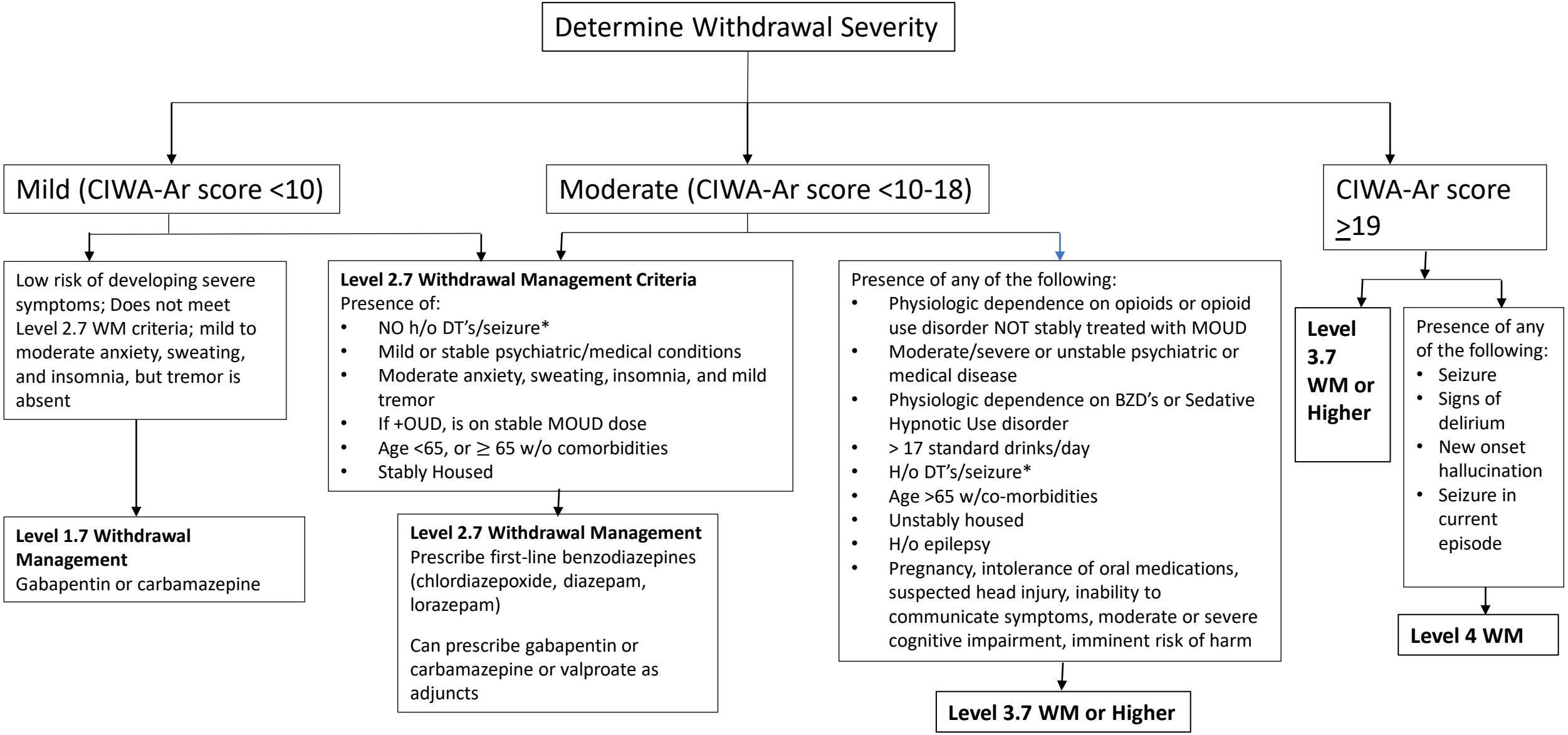
Kindling Phenomenon

- Severity of EtOH withdrawal symptoms increases after repeated withdrawal episodes
- Even patients experiencing **mild withdrawal** should be treated aggressively to prevent the increase in severity of subsequent withdrawal episodes
- Kindling may also contribute to a patient's relapse risk (increased cravings)
- Even cutting back alcohol (to a significant degree) can cause withdrawal symptoms

Becker 1998

Withdrawal Management for Alcohol

- Step 1: Determine level of care by assessing and predicting withdrawal severity (conservative approach in initial stages)
- Step 2: Provide Initial Evaluation and Treatment of Alcohol Withdrawal Syndrome
- Step 3. Perform daily follow-up for ambulatory alcohol withdrawal management
- Step 4. Refer to/initiate higher level of care for Severe or Complicated AWS



*This criterion will be re-visited in future guidance, as providers become more experienced with ambulatory WM

Standard Drink Conversion Table

Alcohol category	Also known as	Volume	% ABV*	# drinks
Beer	Bottle, can	12 oz	5%	1
	Tallboy	16 oz	5%	1.5
	Tallboy, bomber	22 oz	5%	2
	Forty	40 oz	5%	3.3
Malt liquor	Tallboy	16 oz	6-8%	2-3
	Tallboy	16 oz	12%	4
	Tallboy, 4 Loko	24 oz	12%	5
	Forty	40 oz	12%	8
Wine	Glass	5 oz	12%	1
	Bottle	26 oz	12%	6
	Magnum	1.5 L	12%	12
	Jug/cask/box	3-5 L	12%	24-40
Alcohol	Shot	1.5 oz	40%	1
	Nip	2 oz	40%	1.6
	Pint	16 oz	40%	11
	Fifth	26 oz	40%	17
	Liter/Quart	32 oz	40%	21
	Handle, 1/2 gallon	1.75 L	40%	40

***Standard ABVs listed, if patient reports drinking a different %ABV product (e.g 100 proof (50% alc/vol) liquor), adjust standard drinks accordingly**

- Adapted from: https://www.integration.samhsa.gov/clinical-practice/sbirt/Stnd-Drink-Ruler-_chart.pdf

Step 2: Initial Evaluation and Treatment of AWS

- UDS
- If lab access available: CBC, CMP, Hep C Ab, BAL
- Routine physical eval
- Other factors related to successful ambulatory WM

Medication Options: Anti-Convulsants

Gabapentin and Carbamazepine

Appropriate for:

- **Mild** to moderate alcohol withdrawal syndrome
- Outpatient treatment
- Adjunct to benzodiazepine therapy
  - Ensure adequate dose of BZD has been given

Benefits:

- Sufficient evidence of efficacy and safety for mild-moderate AWS
- May reduce kindling phenomenon
- Compared to BZD's:
  - Better safety profile
  - Less sedating
  - Lower risk of drug-drug interactions
- Evaluations of efficacy for patients requiring hospitalization is lacking

Stock 2013
ASAM Clinical Practice Guideline on Alcohol Withdrawal Management

Medication Options: Benzodiazepines

- Generally considered first-line for alcohol withdrawal syndrome
- Use longer-acting BZD (diazepam or chlordiazepoxide) for "gentler withdrawal course"
- For patients with moderate-severe hepatic impairment, use BZD without hepatic metabolism (lorazepam, oxazepam) or refer for inpatient withdrawal management

ASAM Clinical Practice Guideline on Alcohol Withdrawal Management

Sample Gabapentin Dosing Regiment

Day	Gabapentin dosing
Day 1	300 mg every 6 hours
Day 2	300 mg every 6 hours
Day 3	300 mg every 6 hours
Day 4	300 mg every 8 hours
Day 5	300 mg every 12 hours
Day 6	300 mg for one dose, then stop
Sample sig	*Gabapentin 300 mg capsules, take one capsule every 6 to 24 hours, #18 capsules, zero refills*

For maintenance therapy, gabapentin 600mg TID has been shown to have dose-dependent benefits for abstinence, relapse to heavy drinking and cravings post-withdrawal management.
Patients already taking gabapentin should continue during treatment of AWS

Sample Chlordiazepoxide Dosing

NOTE: in addition to the medication it is recommended to provide a few additional take-home doses for breakthrough symptoms. In the sample sig's below, 4 additional 25 mg chlordiazepoxide doses are included.

	Chlordiazepoxide dose (daily alcohol consumption < 9 US standard drinks)	**Chlordiazepoxide dose (daily alcohol consumption between 9 and 17 US standard drinks)**	**Daily alcohol consumption > 17 US standard drinks**
Day 1	25 mg four times a day	50 mg four times a day	Inpatient withdrawal management recommended
Day 2	25 mg three times a day	50 mg three times a day	
Day 3	25 mg twice a day	25 mg four times a day	
Day 4	25 mg at night	25 mg three times a day	
Day 5		25 mg two times a day	
Day 6		25 mg at night	
Sample sig	*Chlordiazepoxide 25 mg capsules, take one capsule one to four times daily, #14 capsules, zero refills*	*Chlordiazepoxide 25 mg capsules, take one to two capsules one to four times daily, #28 capsules, zero refills*	

What about Symptom-Triggered Regiments?

- May help to avoid over- or under-treatment with fixed dosing, BUT
- May also be more difficult to administer; someone must accurately assess signs and symptoms
- Probably a better option for inpatient treatment
- Option: Can provide 5 extra tabs of gabapentin/chlordiazepoxide/diazepam to take as needed

Sample Symptom-Triggered Dosing

	Chlordiazepoxide dose* (daily alcohol consumption < 9 US standard drinks)	**Chlordiazepoxide dose* (daily alcohol consumption between 9 and 17 US standard drinks)**	**Daily alcohol consumption > 17 US standard drinks**
Day 1	25 mg every four hours*	50 mg every four hours*	Inpatient withdrawal management recommended
Day 2	25 mg every six hours*	50 mg every six hours*	
Day 3	25 mg every six hours*	25-50 mg every six hours*	
Day 4	25 mg at night*	25-50 mg every 12 hours*	
Day 5		25 mg every 12 hours*	
Day 6		25 mg at night*	
Sample sig	*Chlordiazepoxide 25 mg capsules, take one capsule one to six times daily, #15 capsules, zero refills*	*Chlordiazepoxide 25 mg capsules, take one to two capsules one to six times daily, #35 capsules, zero refills (consider offering this in portions over multiple visits within the 5 day period*	

*For Short Alcohol Withdrawal Scale (SAWS) score ≥ 12

Monitor SAWS score as needed for increased withdrawal symptoms, for SAWS score >18 that is unresponsive to available medications, contact provider or present to ER

Step 3: Getting Started and Following Up

- Generally don't start on first visit
- Informed consent/treatment agreement
- 4 - 5 day process:
  - Day 1 in person
  - Daily check- in
  - Every other day in person or telehealth
- Can use SAWS if want to quantify withdrawal symptoms (e.g. take extra dose for SAWS $\geq$ 12)

The Short Alcohol Withdrawal Scale (SAWS)

	None (0)	Mild (1)	Moderate (2)	Severe (3)
Anxious				
Sleep disturbance				
Problems with memory				
Nausea				
Restless				
Tremor (shakes)				
Feeling confused				
Sweating				
Miserable				
Heart pounding				

Gossop 2002

Step 4: Need for Referral

- General condition, vitals, hydration, orientation, sleep and emotional status, substance use
- Blood alcohol concentration (if available at clinical location)
- Objective withdrawal scale assessment using CIWA-Ar if in-person or SAWS if virtual
- Clinical indications to stop ambulatory management and refer to a higher level of care:
  - Severe and un-resolving tremor despite multiple doses of medication
  - Persistent vomiting, hallucinations, confusion, seizure, agitation
  - Worsening underlying medical or psychiatric conditions
  - Over-sedation
  - Return to alcohol use
  - Syncope or unstable BP or HR

Supportive Care

- Provide:
  - MVT with folate
  - Thiamine 100mg
- Adjunctive meds:
  - Ondansetron
  - Hydroxyzine/clonidine prn anxiety
- Hydration hydration hydration
- Someone in home to help patient and provide you with collateral information

Common Questions

What if the patient overuses the benzodiazepine?

When should I send to the ER?

When should I sent to Level 3.7?

When do I talk about what will happen after withdrawal management?

Withdrawal Management for Opioids

- Many protocols emerging in fentanyl area; utilize collaborative decision-making as well as clinical criteria
- Recommend Pharmacy changes based on emerging evidence regarding dose limits for buprenorphine and use of buprenorphine mono-product (Subutex)
- "Adjunct medications": use them before, during and after WM

Need support for Level 4/hospital withdrawal management with SUD as primary diagnosis

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Thank you!

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BZD Conversion Chart

	Diazepam (Valium)	Chlordiazepoxide (Librium)	Lorazepam (Ativan)	Oxazepam (Serax)
Dose Equivalent	5 mg	25 mg	1 mg	15 mg
Onset of action	Rapid	Intermediate	Intermediate	Slow
Half-life	Long	Long	Short	Short
Active Metabolites	Yes	Yes	No	No
Hepatic Metabolism	Yes	Yes	No	No
Routes of Administration	PO, IV	PO	PO, SL, IV, IM	PO

Dose equivalents to 30mg of Phenobarbital and 0.5mg of Alprazolam