WITHDRAWAL MANAGEMENT

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DISCLOSURE

I have no conflict of interest to report.

LEARNING OBJECTIVES

Identify	the patient in withdrawal
Increase	fluency with management options for the patient in withdrawal
Develop	understanding of support for patients after withdrawal completed

INTOXICATION VS WITHDRAWAL

CROSSOVER OF SUBSTANCES

- Alcohol intoxication, hypnotic, or anxiolytic intoxication can cause a similar clinical presentation of opioid intoxication and must also be ruled out.
- Withdrawal can also be similar one substance to another, such as withdrawal from benzodiazepines, alcohol or opioids. However, differences in receptor targets can help differentiate one substance withdrawal from another (i.e. pupillary dilatation).
- Withdrawal from one agent could also look like intoxication on a different agent (stimulant withdrawal vs opioid/sedative intoxication)
- History, exam and tox screen key to forming DDx

OPIOIDS

INTOXICATION

- Pinpointed pupils
- Slurred speech
- Drowsy appearance
- Slower movements
- Low blood pressure
- Slower heart rate
- Low body temperature
- Less physical pain

WITHDRAWAL

- Lacrimation or rhinorrhea,
- Piloerection
- Myalgia
- Diarrhea, nausea/vomiting
- Pupillary dilation and photophobia
- Insomnia
- Autonomic hyperactivity (tachypnea, hyperreflexia, tachycardia, sweating, hypertension, hyperthermia)
- Yawning

COWS:
Clinical Opioid Withdrawal Scaler

Enter scores at time zero, 30 minutes after first dose, 2 hours after first dose, etc.	Time:	Time:	Time:	Time:
Resting Pulse Rate: *Record beats per minute after patient is sitting or lying down 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				
Sweating: *Over past ½ hour not accounted for by room temperature or activity* • 0 - no chills or flushing • 1 - subjective chills or flushing • 2 - flushed or observable moistness on face • 3 - beads of sweat on brow or face • 4 - sweat streaming off face				
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 movement of legs/arms • 5 - unable to sit still for more than a few seconds				
Pupil size • 0 - pupils pinned or normal size for light • 1 - pupils possibly larger than normal for light • 2 - pupils moderately dilated • 5 - pupils dilated that only rim of the iris is visible				
Bone or joint aches: *If patient was having pain previously, only the additional component attributed to opiate 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				
Runny nose or tearing: *Not accounted for by cold symptoms or allergy* • 0 - none present • 1 - nasal stuffiness or unusually moist eyes • 2 - nose running or tearing • 4 - nose constantly running or tears streaming down cheeks				
GI upset: *Over last ½ hour* • 0 - no GI symptoms • 1 - stomach cramps • 2 - nausea or loose stool • 3 - vomiting or diarrhea • 5 - multiple episodes of diarrhea or vomiting				
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				
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				
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				
Gooseflesh skin • 0 - skin is smooth • 3 - piloerrection of skin can be felt or hairs standing up on arms • 5 - prominent piloerrection				
5—12 = mild; ***13—24 = moderate;*** ***25—36 = moderately severe;*** ***> 36 = severe withdrawal*** **TOTAL** OBSERVER INITIALS				

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

FIGURE 1

Subjective Opiate Withdrawal Scale (SOWS)[30]

In the column below in today's date and time, and in the column underneath, write in a number from 0-4 corresponding to how you feel about each symptom RIGHT NOW. Scale: 0 = not at all, 1 = a little, 2 = moderately, 3 = quite a bit, 4 = extremely.

DATE: _____

TIME: _____:_____

	Symptom	Score	Score	Score	Score	Score	Score
1	I feel anxious						
2	I feel like yawning						
3	I am perspiring						
4	My eyes are teary						
5	My nose is running						
6	I have goosebumps						
7	I am shaking						
8	I have hot flushes						
9	I have cold flushes						
10	My bones and muscles ache						
11	I feel restless						
12	I feel nauseated						
13	I feel like vomiting						
14	My muscles twitch						
15	I have stomach cramps						
16	I feel like using now						
	TOTAL						

SOURCE: Reprinted with permission of the World Health Organization, from: Annex 10: Opioid withdrawal scales. In: *Guidelines for the Psychosocially Assisted Pharmacological Treatment of Opioid Dependence.* Geneva, Switzerland: World Health Organization; page 86. Copyright © 2009. www.ncbi.nlm.nih.gov/books/NBK143185/pdf/Bookshelf_NBK143185.pdf. Accessed June 4, 2019.

STIMULANTS

INTOXICATION

- Psychosis
- Hyperthermia
- Hallucinations
- Psychomotor agitation, restlessness
- Skin picking
- Sexual Arousal
- Pupillary dilation

WITHDRAWAL

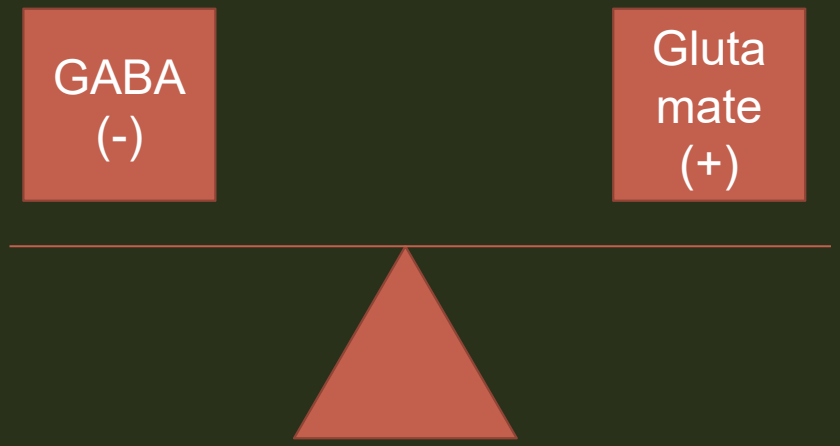
- Marked depression
- Excessive sleep
- Hunger
- Dysphoria
- Severe psychomotor retardation
- All vital functions are well preserved
- Depression can last for several weeks.

ALCOHOL INTOXICATION

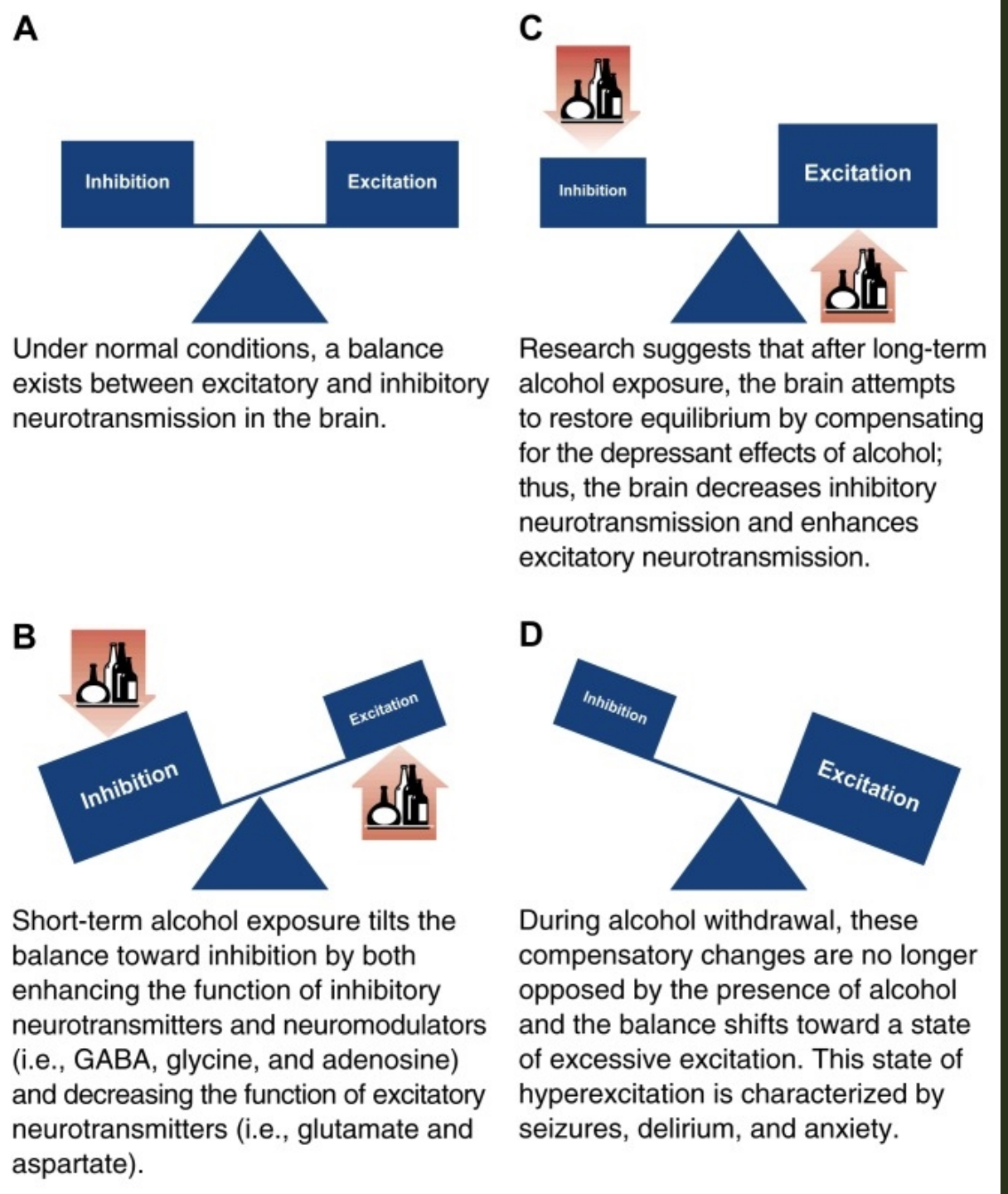
- Speech: incoherent, rambling and slurring.
- Behavior: Rude, offensive, overly friendly, annoying, confused, aggressive, violent and inappropriate.
- Coordination: Balance is often unsteady with staggering and swaying. Delayed reflexes, poor hand-eye coordination

ALCOHOL - WITHDRAWAL

- Chronic stimulation of specific receptors suppresses endogenous production of neurotransmitters, endorphins or GABA.
- Removal of the exogenous drug (EtOH) allows unopposed counter-regulatory effects.
- When the exogenous drug is removed, inadequate production of endogenous transmitters and unopposed stimulation by counter-regulatory transmitters results in withdrawal symptoms.
- Overactivation of excitatory pathways…



GABA is the most important inhibitory neurotransmitter in the CNS. Alcohol and bzo impact the GABA receptors.



ETOH WITHDRAWAL

- Anxiety
- Sweating
- Tremors, particularly in hands
- Dehydration
- Increased heart rate and blood pressure
- Insomnia
- Nausea and vomiting
- Diarrhea
- Seizures
- Hallucinations
- Delirium
- Hyperthermia
- Extreme agitation
- Hyperactive reflexes

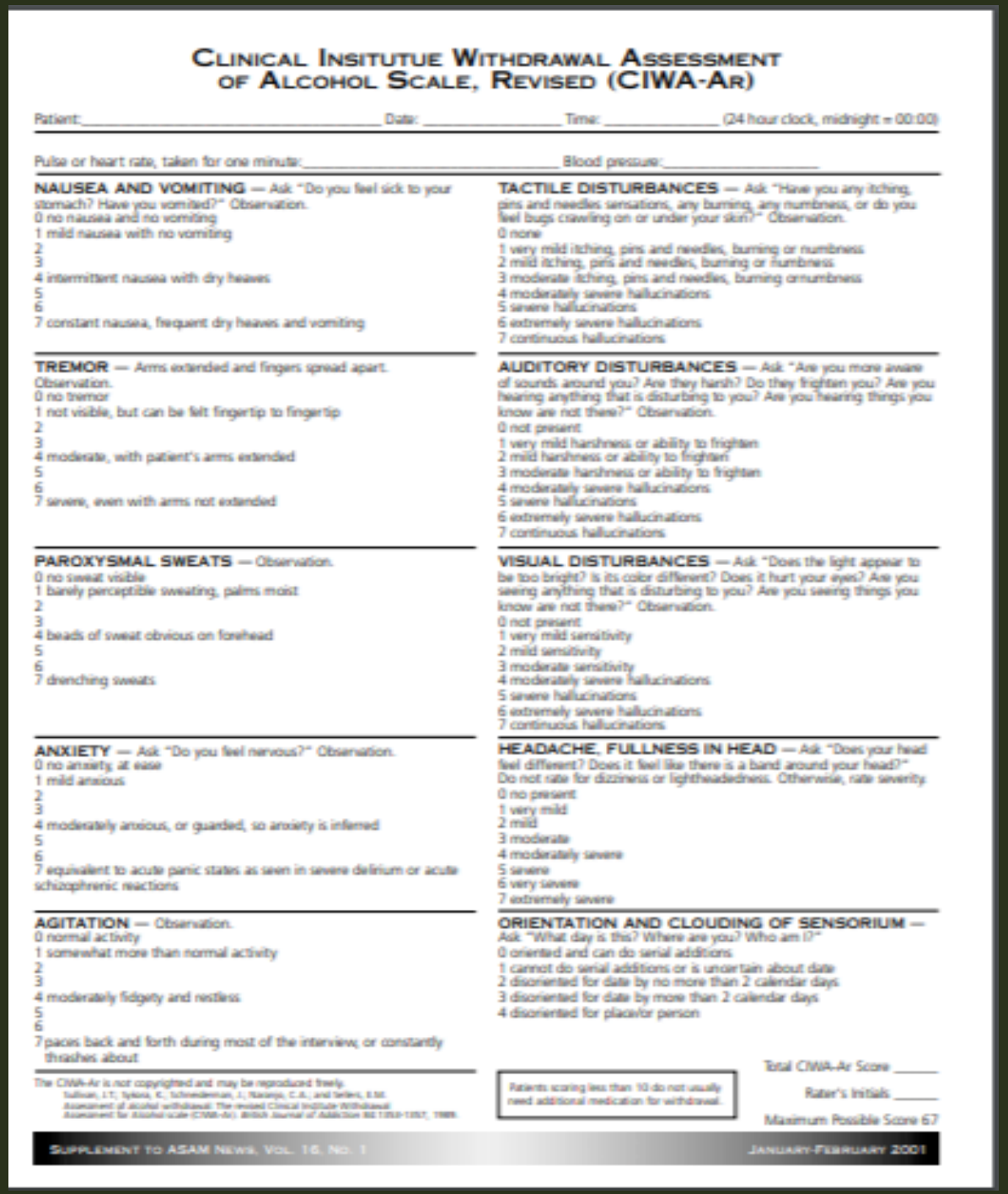
BENZODIAZEPINES

INTOXICATION

- Confusion
- Euphoria
- Impaired thinking and memory loss
- Drowsiness, sleepiness and fatigue
- Slurred speech or stuttering
- Double or blurred vision
- Impaired coordination, dizziness

WITHDRAWAL

- Sleep disturbance
- Irritability
- Anxiety, panic attacks
- Tremor
- Sweating
- Trouble concentrating
- Dry retching and nausea
- Palpitations
- Headache, muscular pain and stiffness
- Seizures and psychotic reactions



Clinical Insitutue Withdrawal Assessment of Alcohol Scale, Revised (CIWA-Ar)

Patient:_____ Date: _____ Time: _____ (24 hour clock, midnight = 00:00)

Pulse or heart rate, taken for one minute:_____ Blood pressure:_____

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 ornumbness
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 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?" 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 no 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

Total CIWA-Ar Score _____

Rater's Initials _____

Maximum Possible Score 67

Patients scoring less than 10 do not usually need additional medication for withdrawal.

Sullivan, J.T; Sykora, K.; Schneiderman, J.; Naranjo, C.A.; and Sellers, E.M. Assessment of alcohol withdrawal: The revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA-Ar). British Journal of Addiction 84:1353-1357, 1989.

CIWA-Ar categories, with the range of scores in each category, are as follows:

1. Agitation (0-7)
2. Anxiety (0-7)
3. Auditory disturbances (0-7)
4. Clouding of Sensorium (0-4)
5. Headache (0-7)
6. Nausea/Vomiting (0-7)
7. Paroxysmal Sweats (0-7)
8. Tactile disturbances (0-7)
9. Tremor (0-7)
10. Visual disturbances (0-7)

CIWA is useful in assessing benzodiazepine withdrawal severity as well as alcohol withdrawal.

CANNABIS

INTOXICATION

- Impaired concentration, motor incoordination
- Injected conjunctiva, pupillary constriction
- Nystagmus
- Increased heart rate
- Paranoia
- Altered time sense
- Hallucinations

WITHDRAWAL

- Anxiety and a general feeling of fear and dissociation
- Restlessness
- Irritability
- Poor appetite
- Disturbed sleep, sometimes marked by vivid dreams
- Gastrointestinal upsets
- Night sweats
- Tremor

REVERSAL AGENTS

Naloxone = Opioids

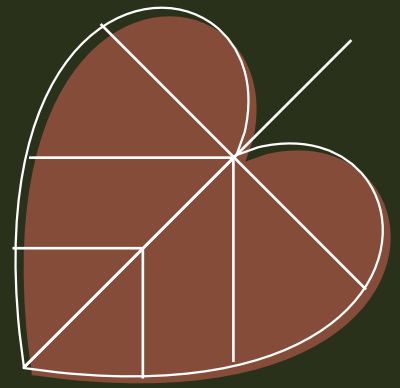
- *Reverse opioid induced sedation, respiratory suppression*
- *No risks associated with use*

Flumazenil = Benzodiazepines

- *Reverse benzodiazepine-induced sedation*
- *Risks of flumazenil usually outweigh the benefits in acute toxicity as there have been many fatalities associated with its use*

WITHDRAWAL MANAGEMENT

First, be kind…



Withdrawal occurs in the patient who has a physiological dependence on a substance when they decrease intake or stop abruptly

Important to recognize that patients in withdrawal need to complete the acute withdrawal phase before engaging in anything other than making it through the day

Not the time for counseling	Not the time for rigorous physical activity	Homeostasis is the goal

ALCOHOL

- AWS begins 6-24 hours after last drink, or significant decrease in volume consumed
- Benzodiazepine taper
    - *Symptom triggered dosing*
    - *Fixed dosing*
    - *Liver considerations (diazepam vs lorazepam {do not have active metabolites after hepatic conjugation, and therefore have minimally affected half-lives in patients with liver disease.})*
- Carbamazepine
- Phenobarbital
- Gabapentin
- Nutritional support, Thiamine (B1)

BENZODIAZEPINES

- The safest way to manage benzodiazepine withdrawal is to give benzodiazepines in gradually decreasing amounts.

    Taper with currently utilized benzodiazepine

    Substitute for different benzodiazepine and taper

    Phenobarbital can be use as benzodiazepine substitute

BENZODIAZEPINE CONVERSION

5 MG OF DIAZEPAM IS EQUIVALENT TO:

- 0.5mg of alprazolam
- 0.5mg of lorazepam
- 5mg of nitrazepam
- 15mg of oxazepam
- 2.5mg of midazolam
- 10mg of temazepam
- 0.25mg of triazolam

- Taper using a long acting benzodiazepine like diazepam.

CANNABIS, STIMULANTS, INHALANTS

- REST
- HEALTHY DIET
- CALM ENVIRONMENT
- Possible role for support medications

OPIOIDS

- Transitioning from full mu agonist opioid to medically managed full mu agonist (methadone), partial mu agonist (buprenorphine), or antagonist (naltrexone)
- Tapering down and then off
- Abrupt cessation and use of support meds
- Using buprenorphine as tapering agent during inpatient detox

“SUPPORT” MEDICATIONS

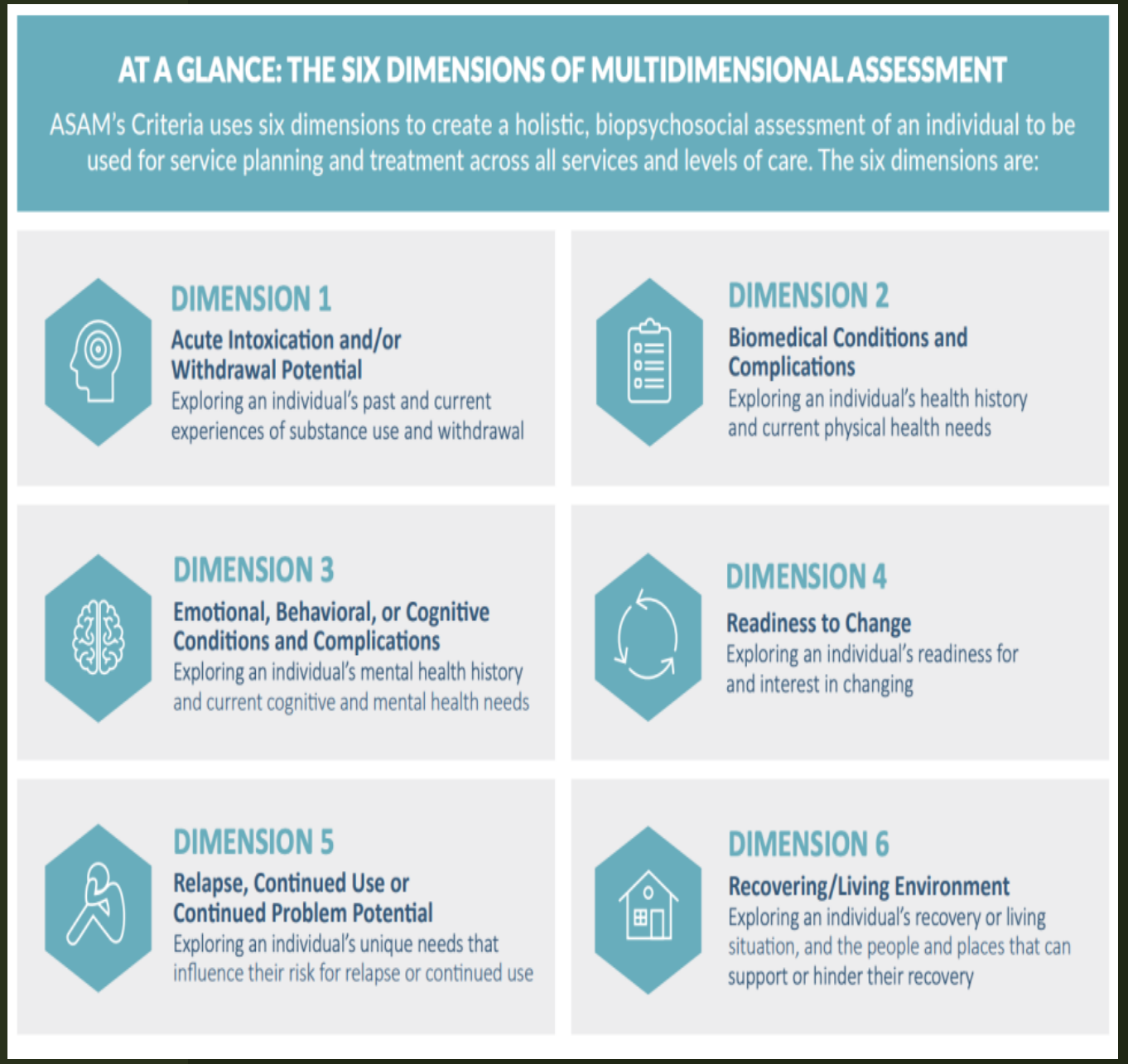
Clonidine	Lofexidine (Lucemyra, not available as generic = $$)	Loperamide	Ondansetron
NSAIDs	Acetaminophen	Hydroxyzine	Baclofen, Tizanidine

POST-WITHDRAWAL CARE AND CONSIDERATIONS

NOW THAT DETOX IS DONE...

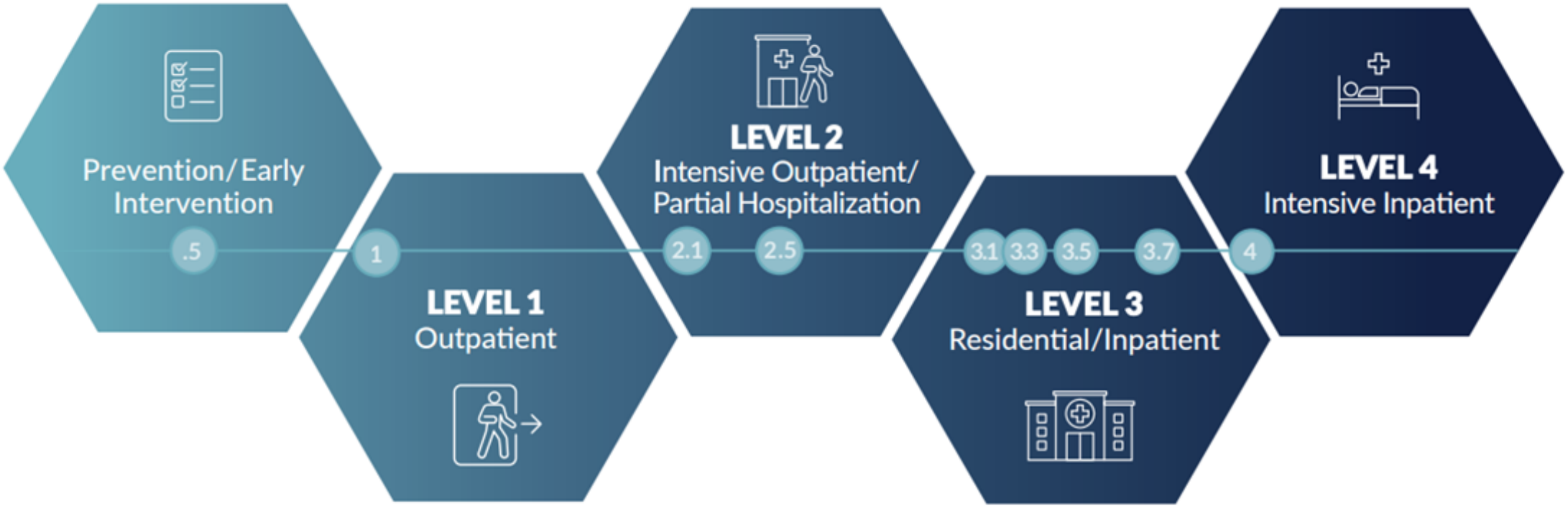
- Inpatient rehab
- Partial Hospitalization
- Intensive Outpatient Treatment Program
- Outpatient treatment programs
- Peer support
- Counseling

ASAM LEVELS OF CARE

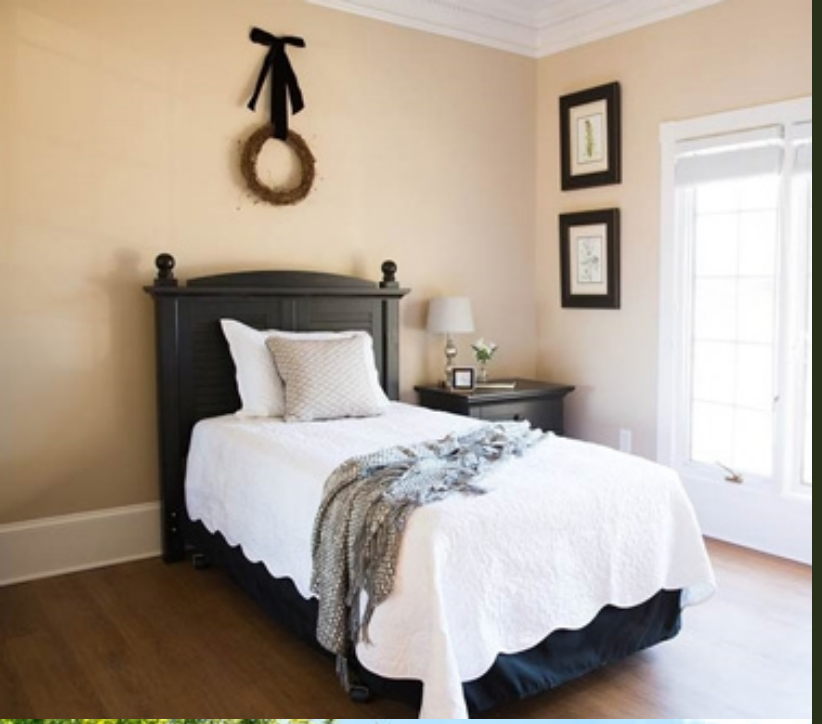


ASAM CONTINUUM OF CARE

ADULT



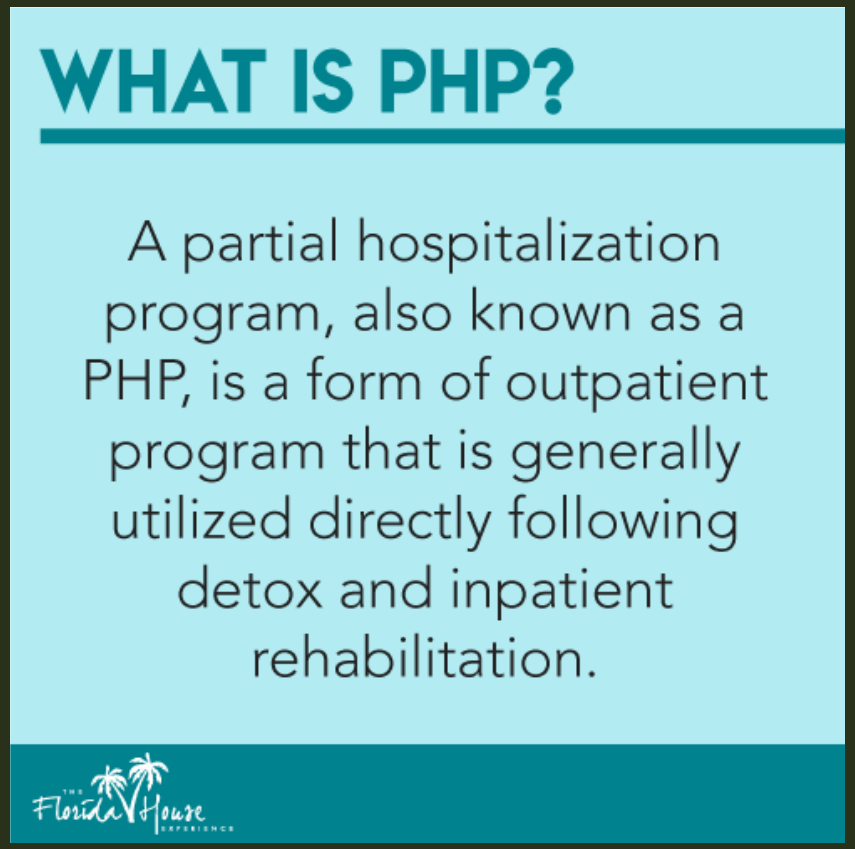
.5	Early Intervention
1	Outpatient Services
2.1	Intensive Outpatient Services
2.5	Partial Hospitalization Services
3.1	Clinically Managed Low-Intensity Residential Services
3.3	Clinically Managed Population-Specific High-Intensity Residential Services
3.5	Clinically Managed High-Intensity Residential Services
3.7	Medically Monitored Intensive Inpatient Services
4	Medically Managed Intensive Inpatient Services



INPATIENT

- Cognitive Behavioral Therapy, Dialectical Behavior Therapy, Experiential Therapy
- Individual, group, and family programming
- Psychiatric services, including medication management,
- Substance use and co-occurring disorders education
- Daily process groups, mindfulness groups, and exercise & wellness activities
- Relapse prevention groups, gender groups, life skills groups
- Daily 12-Step Meetings

PARTIAL HOSPITALIZATION PROGRAM



INTENSIVE OUTPATIENT PROGRAM

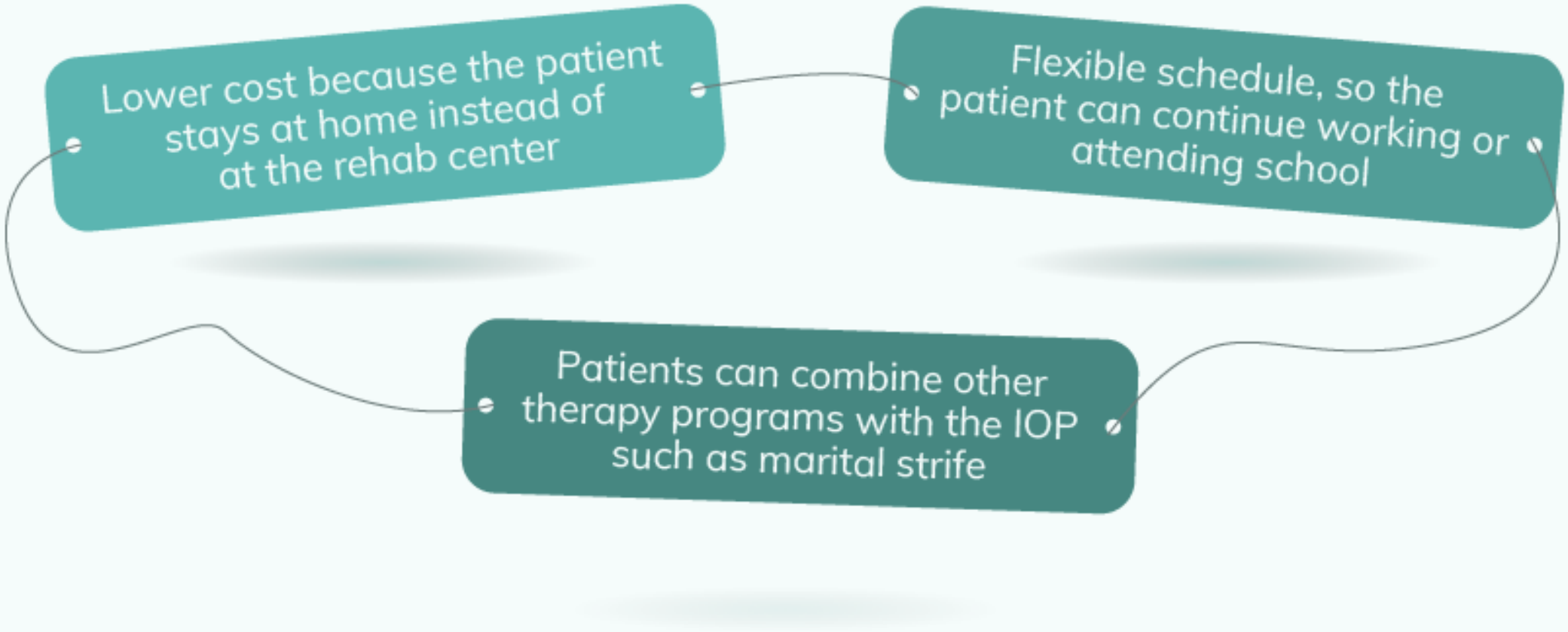
What is IOP?

It stands for Intensive Outpatient Program

Patients will live at home but undergo several hours of intense on-site treatment at a rehab facility

Involves regular scheduled meetings with different professionals like therapists, doctors, psychologists

Benefits of IOP



Cons of IOP

- Since the patient is housing at home, the possibility of encountering drugs or alcohol is higher
- 24 hour support is not available so easily because the patient is living at home with no counselors or staff members
- Medical detoxification is often times not a part of the IOP program

OUTPATIENT

PHP

Full time

Several hours per day

Go to personal living space at end of day

IOP

- Part time
- Living in own living space
- A few hours a few days a week
- Permits continued engagement in life outside of treatment

OUTPATIENT TREATMENT

- Specialty clinic
- Primary care clinic

OVERMOUNTAIN RECOVERY

AMERICAN COLLEGE of ACADEMIC ADDICTION MEDICINE
ACAAM
FOUNDING MEMBER

PEER SUPPORT & COUNSELING

SUMMARY

- Withdrawal happens when substance stops
- Kind, patient support (medications and social) standard of care during withdrawal
- Once through withdrawal, need for continued connection to care is a must.
- Once detox is over, the work is just beginning.

RESOURCES

- Clinical Guidelines for Withdrawal Management and Treatment of Drug Dependence in Closed Settings. Geneva: World Health Organization; 2009. 4, Withdrawal Management. https://www.ncbi.nlm.nih.gov/books/NBK310652/
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- https://adf.org.au/drug-facts/benzodiazepines/

RESOURCES

- Images

  https://www.changingtidesaddictiontreatment.com/6-benefits-of-intensive-outpatient-programs/

  https://fherehab.com/news/php-and-iop-what-is-it/