ALCOHOL USE DISORDER

In Primary Care

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HENRY FORD
MAPLEGROVE CENTER

ALCOHOL USE DISORDER

Alcoholism

ASAM “Short” Definition

- Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.
- Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one’s behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.

Yes, there is a ”long definition”

Addiction

- Obsession or compulsion to use a drug despite negative consequences
- Chronic relapsing disease
- Brain disease characterized by dysfunctional neuro-adaptation of the reward pathway, and altered hedonic tone
- 4C's

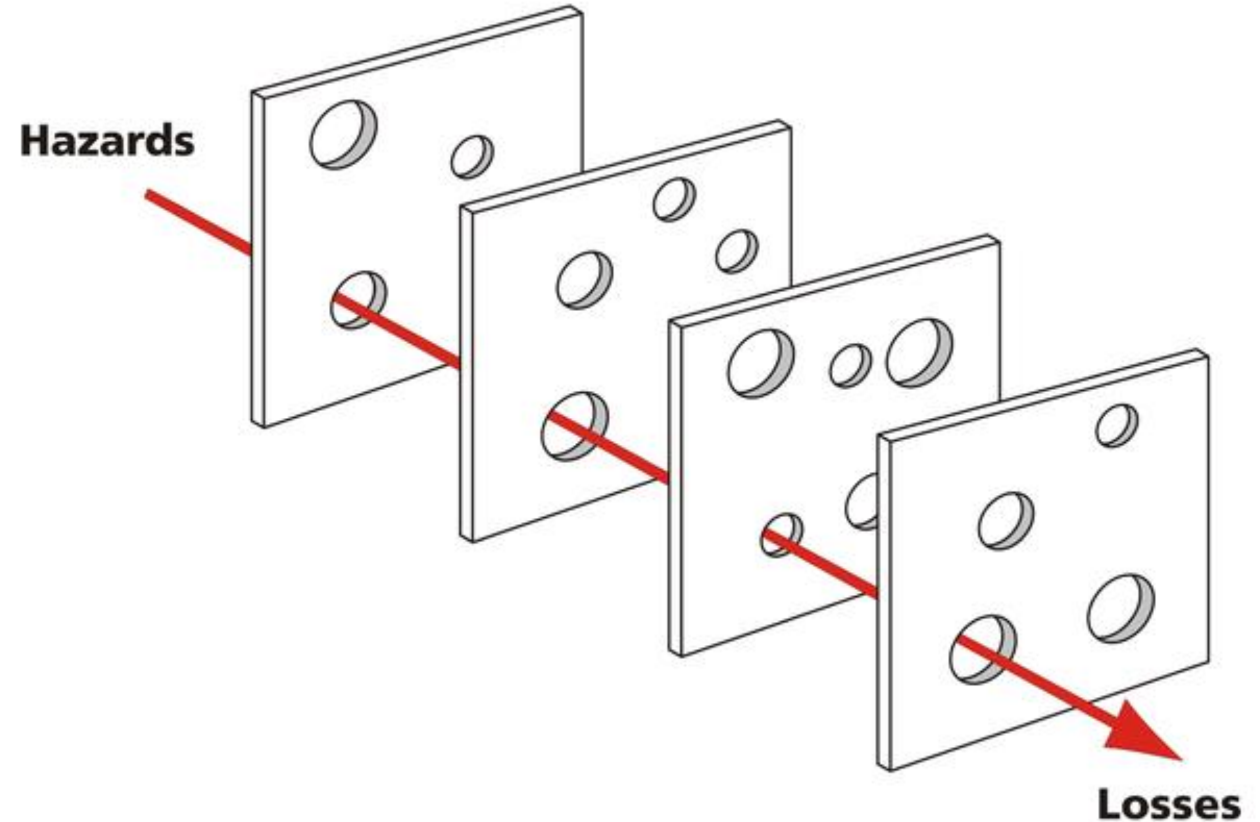
DSM-5 Alcohol Use Disorder

Broad Domain	DSM-5 Diagnostic Criteria
CONTROL	Drinking larger amounts or over longer periods than intended
	Desire or unsuccessful attempts to cut down or control alcohol use
	A great deal of time spent obtaining, using, or recovering from alcohol
CRAVINGS	Craving, or a strong desire or urge to use alcohol
CONSEQUENCES	Failure to fulfill major role obligations as a result of alcohol use
	Continued drinking despite social or interpersonal problems
	Diminished, social, occupational, or recreational activities due to drinking
	Recurrent alcohol use in physically hazardous situations
	Continued drinking despite physical of psychological problems (includes blackouts)
COMPULSION	Tolerance
	Withdrawal

2-3 Mild
4-5 Moderate
6+ Severe

Addiction

- Nature: roughly 50% heritable
- Nurture: many known environmental factors
  - Childhood & adolescent stressors
  - Verbal, physical and sexual abuse
  - Household instability
  - Socioeconomic status
  - Education
  - Peer group
- Swiss cheese model



Addiction without Dependence?

- Person who only drinks on weekends
- But when he does, he quickly loses control, suffers black outs and endures negative consequences

Dependence Without Addiction?

- 64 year old woman with chronic back pain s/p laminectomy & fusion
- Norco 10mg QID x 10 years with no aberrant behavior / red flags

What do our instruments measure?

- Hazardous Alcohol Use
- NOT Alcohol Use Disorder, Alcohol Dependence or Alcoholism

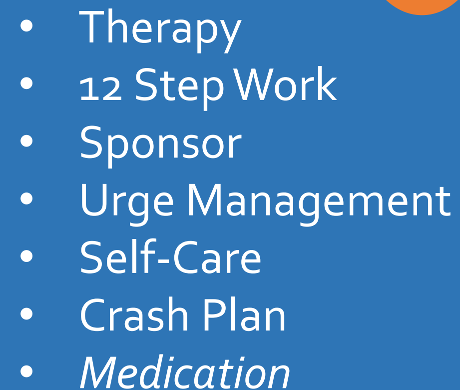
ALCOHOL USE DISORDER

Medication Assisted Treatment

Do I Need Medication?

- No. Millions have recovered with them
- It's just another tool in your toolbox

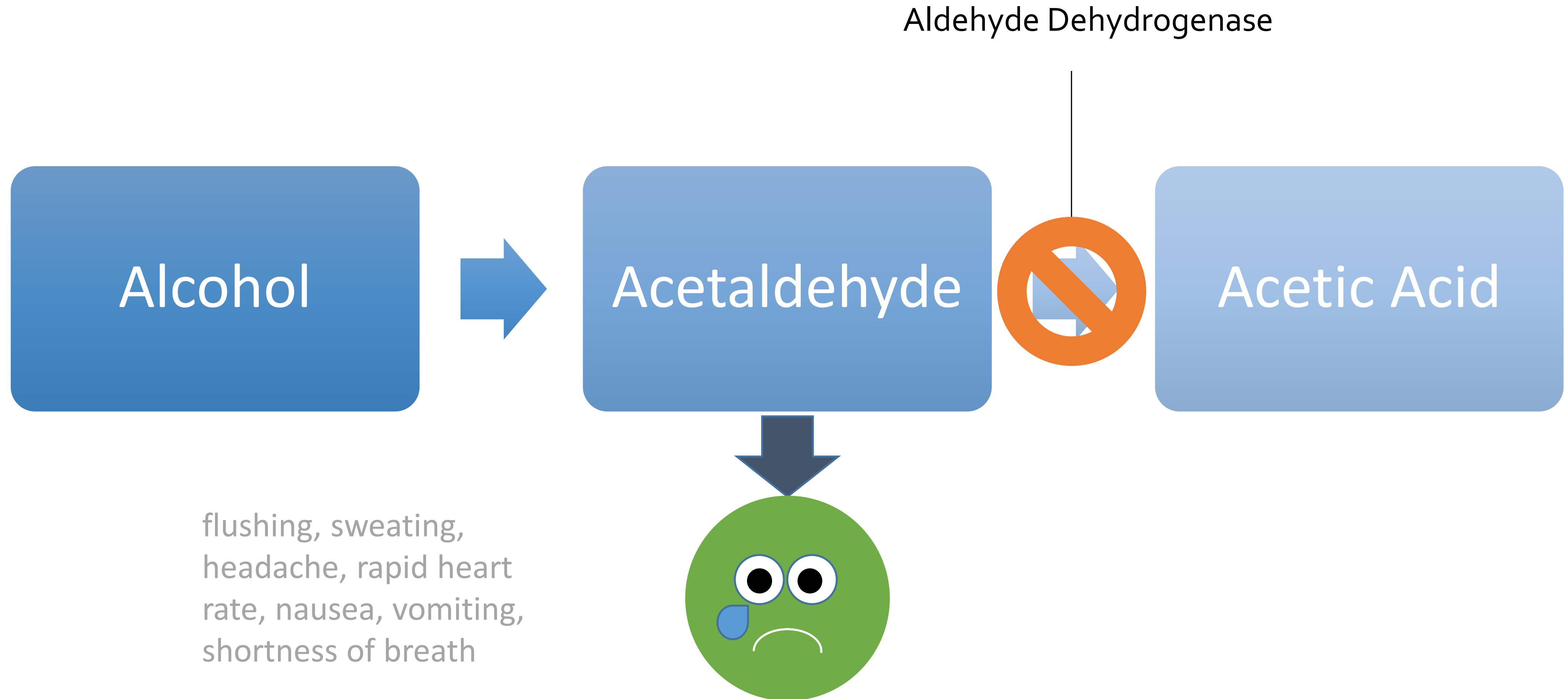
- Medications should be offered to all patients with moderate or severe alcohol use disorder



Antabuse - History

- 1940’s: Accidental discovery by *Dr. Erik Jacobsen* of Copenhagen who was researching a medication for intestinal worms and scabies.
- He tested a couple of pills on himself before a dinner party and was surprised to find out alcohol made him ill.
- Industrial chemical used in the *rubber industry* in the early 1900’s. Known to make factory workers intolerant of alcohol

Antabuse: How it Works



Antabuse - Contraindications

- Heart disease
- Esophageal varices
- Pregnancy
- Schizophrenia or other psychotic disorder
- Seizure disorder (OTHER THAN WITHDRAWAL SEIZURES)
- CNS Lesions

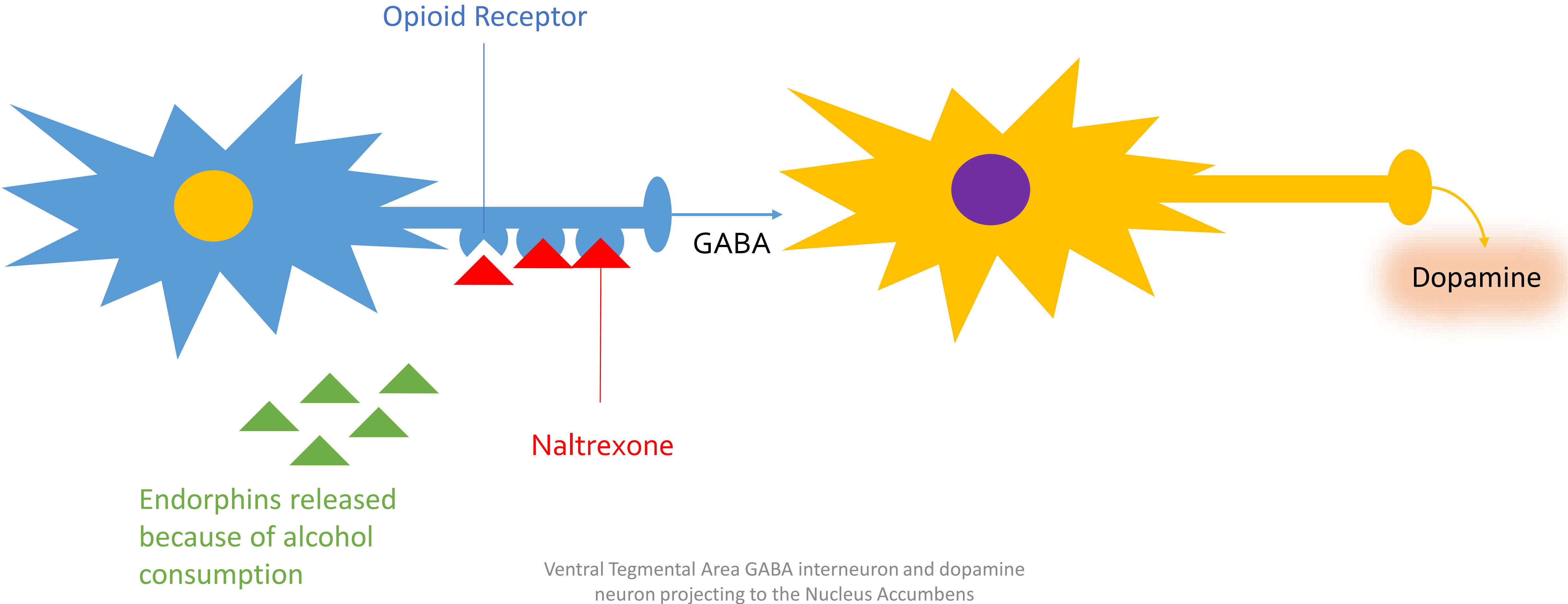
- Caution advised with severe renal or hepatic impairment

Naltrexone

- Approved by FDA in 1994
- Mechanisms:
  - ➢ Reduces cravings
  - ➢ Reduces endorphin and dopamine release due to drinking (makes alcohol less reinforcing)
- 5% absolute risk reduction for abstinence (NNT = 20)
- 9% absolute risk reduction for heavy drinking (NNT = 11)
- Long acting form: Vivitrol – approved by FDA 2006

Jonas DE, et al, JAMA. 2014;311(18):1889-1900

Naltrexone Mechanism of Action



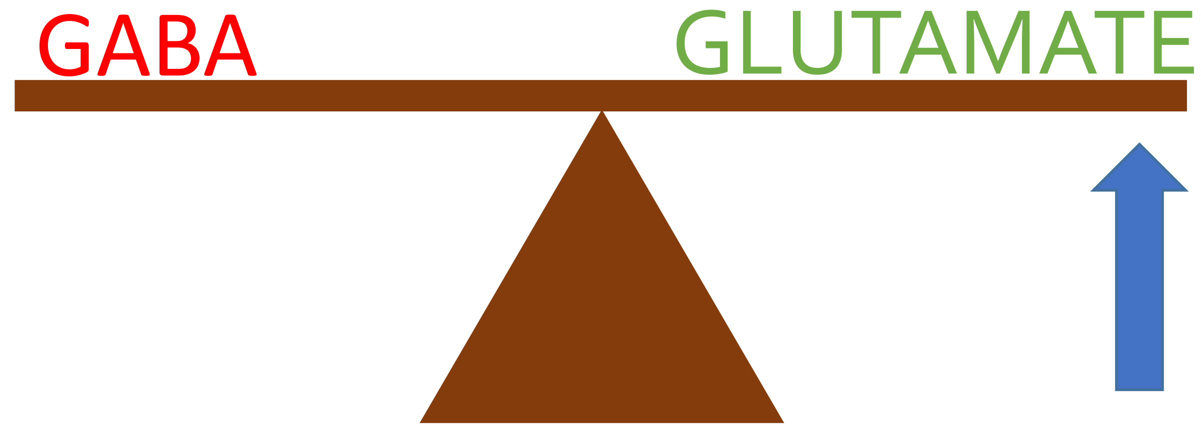
Ventral Tegmental Area GABA interneuron and dopamine neuron projecting to the Nucleus Accumbens

Acamprosate

- Approved by FDA in 2004
- Structural analog of the amino acid taurine
- Decreases withdrawal stress and cravings
- Inhibits glutamate
- Reduces cravings by restoring balance to GABA – Glutamate system
- 9% Absolute risk reduction for abstinence (NNT = 11)

Jonas DE, et al, JAMA. 2014;311(18):1889-1900

Campral – Mechanism of Action



CAMPRAL

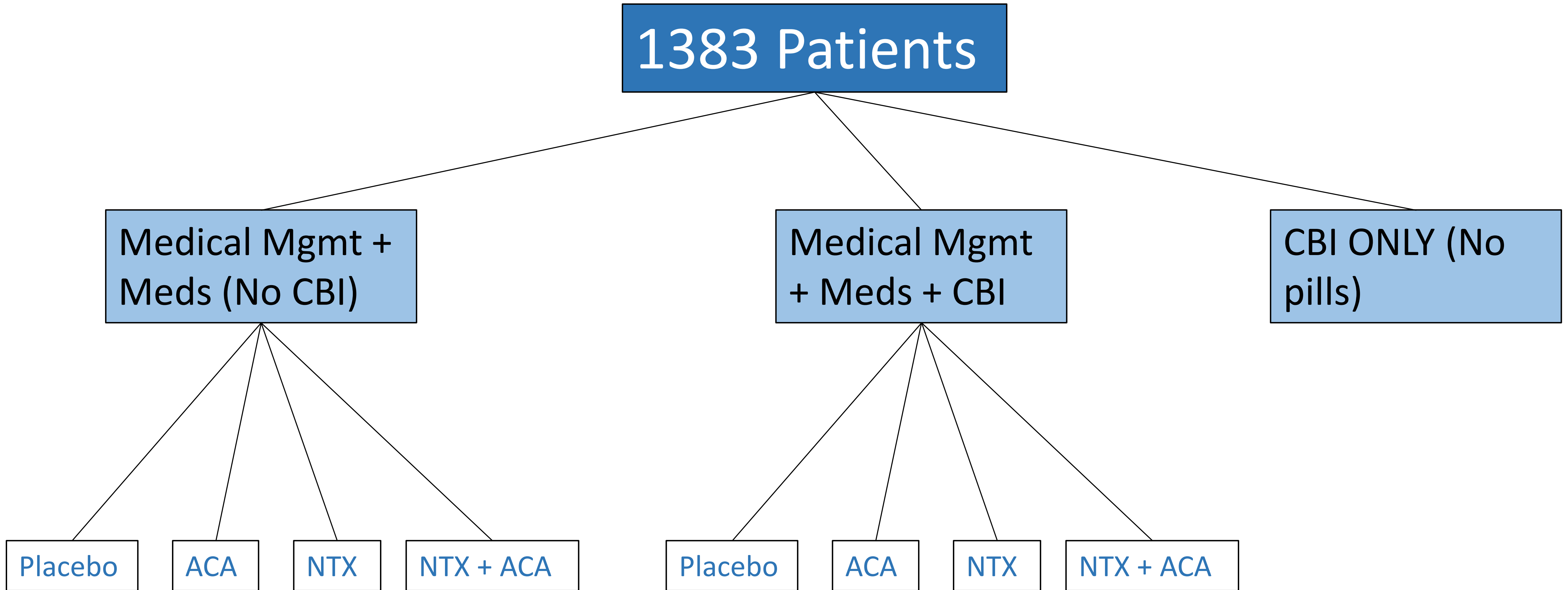
(Exact Mechanism Unknown – binds to NMDA receptors and glutamate receptor 5 – mGluR5)

COMBINE STUDY

- Largest randomized controlled pharmacotherapy study on alcohol to date
- Funded by the National Institute on Alcohol Abuse & Alcoholism (NIAAA)
- 1383 Patients from 11 Academic sites in the US between 2001-2004

Anton RF, et al. Combined Pharmacotherapies and Behavioral Interventions for Alcohol Dependence. The COMBINE Study: A Randomized Controlled Trial. JAMA 2006;295(17):2003-17.

COMBINE STUDY



CBI = Combined Behavioral Intervention: 20 x 50 min sessions including CBT, MET and 12 Step facilitation
Med Mgmt = 9 sessions with doctor, APA or trained nurse

COMBINE STUDY RESULTS

- All treatment groups improved: % days abstinent improved from 25% to 73%
- If therapy not provided, naltrexone is superior to placebo, acamprosate, and naltrexone + acamprosate
- If therapy is provided, any pill with medical management (meetings with medical provider) is superior to therapy alone

Antabuse vs Naltrexone & Acamprosate

- Laaksonen, et al 2008 conducted a multicenter, randomized, open label study of 243 patients over 2.5 years.
  - Randomized 1:1:1 disulfiram : naltrexone : acamprosate
  - 12 week period of supervised (loved one + pill count) daily medication
  - *Targeted medication* phase up to 1 year (Take a pill if you are having cravings or going into a high relapse risk situation).
  - Combined psychotherapy was targeted to type of medication, i.e., abstinence for disulfiram or reduction in drinking for naltrexone & acamprosate.

Laaksonen E, et al. Alcohol & Alcoholism 2008;43(1):53-61

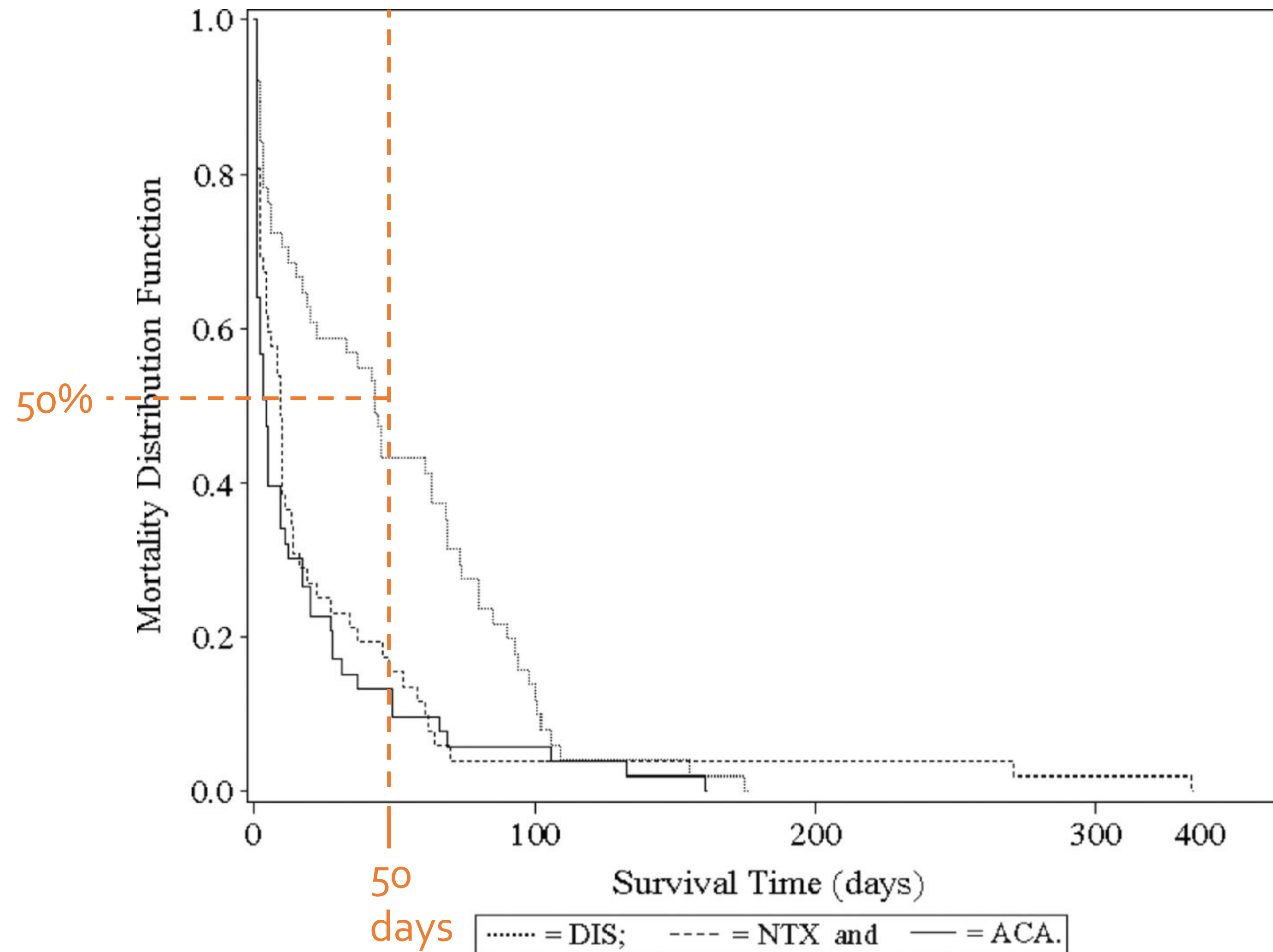
Antabuse vs Naltrexone & Acamprosate – Avg alcohol (grams/week) during the first year

	Acamprosate	Disulfiram	Naltrexone
Baseline, mean	570.8	591.2	561.8
Continuous Medication (weeks 1-12)	203.2	52.0*	183.7
Targeted Medication	194.9	109.2**	229.3

- *Significance DIS > NTX and ACA ($P < 0.0001$)
- **Significance DIS > NTX ($P = 0.0005$) and ACA ($P = 0.0097$)

Adapted from Laaksonen et al, 2008

Time to first drink (days) during the whole study period (1–52 weeks).



E. Laaksonen et al. Alcohol and Alcoholism 2008;43:53-61

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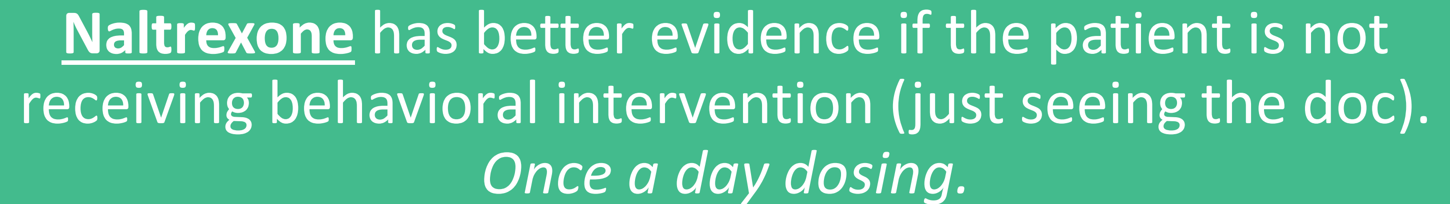
ALCOHOL AND ALCOHOLISM

So Which is Most Effective?



Acamprosate equal to naltrexone in many other studies & may be more helpful for abstinence vs decreased heavy drinking

MEDICATION	Efficacy Rank	Contraindications	Caution	Notes	Monitoring	Med Interactions
Disulfiram	1	Heart disease, Esophageal varices, Pregnancy, Psychosis, Seizure disorder, CNS lesions	Severe renal or hepatic impairment	*-Observed dosing required for advantage over other meds* -Avoid foods, mouthwash, meds with etoh	Liver enzymes at baseline and again at 10-14 days & Periodically, ophthalmologist once a year.	***Metronidazole, Warfarin, Some antivirals and antifungal, Fosphenytoin, Black Cohosh, Celecoxib, Omeprazole***
IM Naltrexone	2	Acute hepatitis or liver failure, pregnancy, concurrent opioid use	Severe renal or hepatic impairment, severe depression	$$$$ Improves compliance	Liver enzymes periodically	Opioids
Oral Naltrexone	3	Acute hepatitis or liver failure, pregnancy, concurrent opioid use	Severe renal or hepatic impairment, severe depression		Liver enzymes periodically	Opioids
Acamprosate	3	Severe renal impairment – CrCl < 30, Pregnancy	CrCl 30-50 half dose	2 pills 3x per day	None	None

Non-FDA Approved Drugs

- Baclofen – needs replication
- Gabapentin – can be addictive
- Topiramate – NNH = 12

- Varenicline
- Zofran

ALCOHOL USE DISORDER

Predicting & Managing Withdrawal

Predictors of Severe Withdrawal

- Comorbid substance abuse
- Comorbid Psychiatric disorder
- History of DT's or seizure
- Symptoms of withdrawal at high BAC
- Elevated BP
- Lab abnormalities (thrombocytopenia, elevated LFTs, elevated BUN)
- There are no reliable, validated predictors
- Seizures & Hallucinosis can occur in the absence of autonomic signs

Saitz, JAMA, August 28, 2018. Vol 320(8)

Predictors of Severe Withdrawal

- Prediction of Alcohol Withdrawal Severity Scale (PAWSS)
- Promising, but small *n* & needs to be replicated
- Components are common sense:
  - ✓History of complicated withdrawal
  - ✓BAC > 200 on admission
  - ✓Autonomic signs

Saitz, JAMA, August 28, 2018. Vol 320(8)

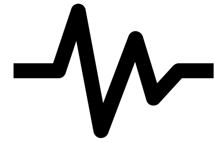
CIWA-Ar

- Nausea & Vomiting
- Tactile Disturbances (itching, numbness, pins & needles, formication)
- Tremor (even fingertip to fingertip)
- Auditory disturbances
- Diaphoresis
- Visual Disturbances
- Anxiety
- Headache, fullness in head
- Agitation
- Orientation / clouded sensorium

Mild < 15
Moderate 15-20
Severe > 20

Other Withdrawal Signs & Symptoms

- Tachycardia
- Hypertension
- Mild hyperthermia
- Tachypnea
- Insomnia
- Palpitations
- Confusion

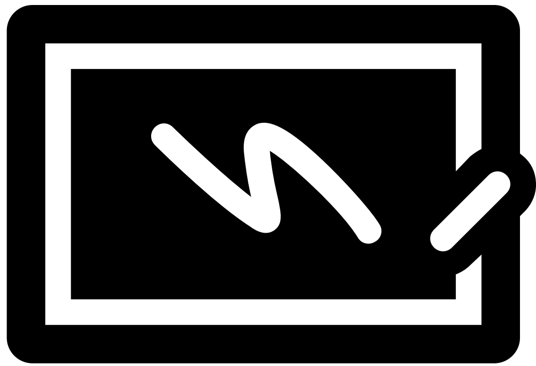


Appropriate Patients for Home Detox

- No significant medical comorbidities
- No unstable psychiatric comorbidities
- No concurrent drug abuse (check UDS)
- No history seizures or DT's (Kindling)
- 24h responsible adult supervision
- Favorable, supportive home environment
- Mild withdrawal symptoms (CIWA < 15)
- Check labs first (CBC, LFT, creat, K+, Mg+). Supplement as needed

Muncie Jr, et al, Am Fam Physician. 2013 Nov 1;88(9):589-595.

Withdrawal Principles



- May start before BAC = 0
- Rule of 8's (8h since last drink, CIWA = 8 or BAC < 0.16) to start detox medication
- Better to treat early, prophylactically than to chase CIWAs. When in doubt, give benzos
- Any benzo will work, but if you need LOT (lorazepam, oxazepam, temazepam) reconsider your outpatient detox

Withdrawal – Dosing Schedules

Fixed dose

- Home Detox
- History of seizures or DT’s
- Cardiac patients
- Unstable or unreliable patients
- Ceiling of 60mg diazepam or 125 mg chlordiazepoxide recommended

Symptom-triggered

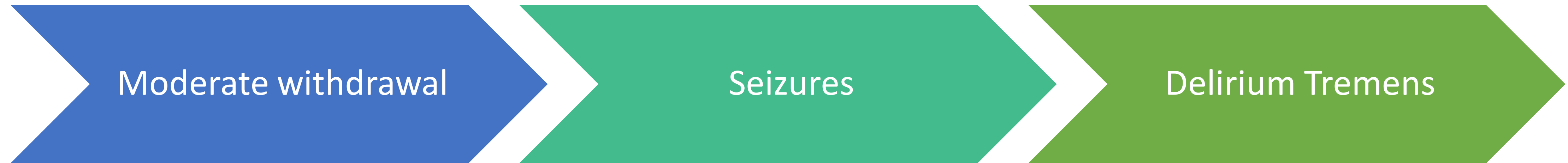
- Everyone else
- Reduces total amount benzo given
- Only as good as the person doing with CIWA

Loading dose

- Reduces seizures & DT’s
- Requires monitoring for respiratory depression
- Diazepam 10-20mg or chlordiazepoxide 50-100mg every 1-2h until adequately sedated – average of 3 doses needed

Muzyk AJ, et al, Am J Addict. 2013 Mar-Apr;22(2):113-8. Sachdeva A, et al, J Clin Diagn Res 2015 Sep; 9(9)

Moderate to Severe Withdrawal



- Autonomic Signs
- Hallucinosis

- peak around 24h (6-48h)
- May occur in the absence of autonomic signs
- 5% progress to status epilepticus
- If occurs > 48h consider head CT for structural cause
- 30% Seizure patients go on to DT's

- 48-72h
- occur in approximately 5% patients
- 4% mortality risk (treated)
- May last up to 2 weeks
- Typically managed in the ICU

S. Jesse, et al, Acta Neurol Scand 2017; 135: 4-16.

The Home Detox:

- Long acting benzodiazepine
- Librium
  - Day 1: 50 mg PO x1, then 25 mg PO Q6h x3
  - Day 2: 25 mg PO Q8h
  - Day 3: 25 mg PO Q12h
  - Day 4: 25 mg QHS
  - Considering giving a couple extra doses just in case
- Don’t forget thiamine 100 mg PO daily & folic acid 1 mg PO daily (Wernicke-Korsakoff Syndrome)
- Daily contact with VS with patient recommended

ALCOHOL USE DISORDER

Motivational Interviewing

THIRD EDITION

MOTIVATIONAL INTERVIEWING

Helping People Change

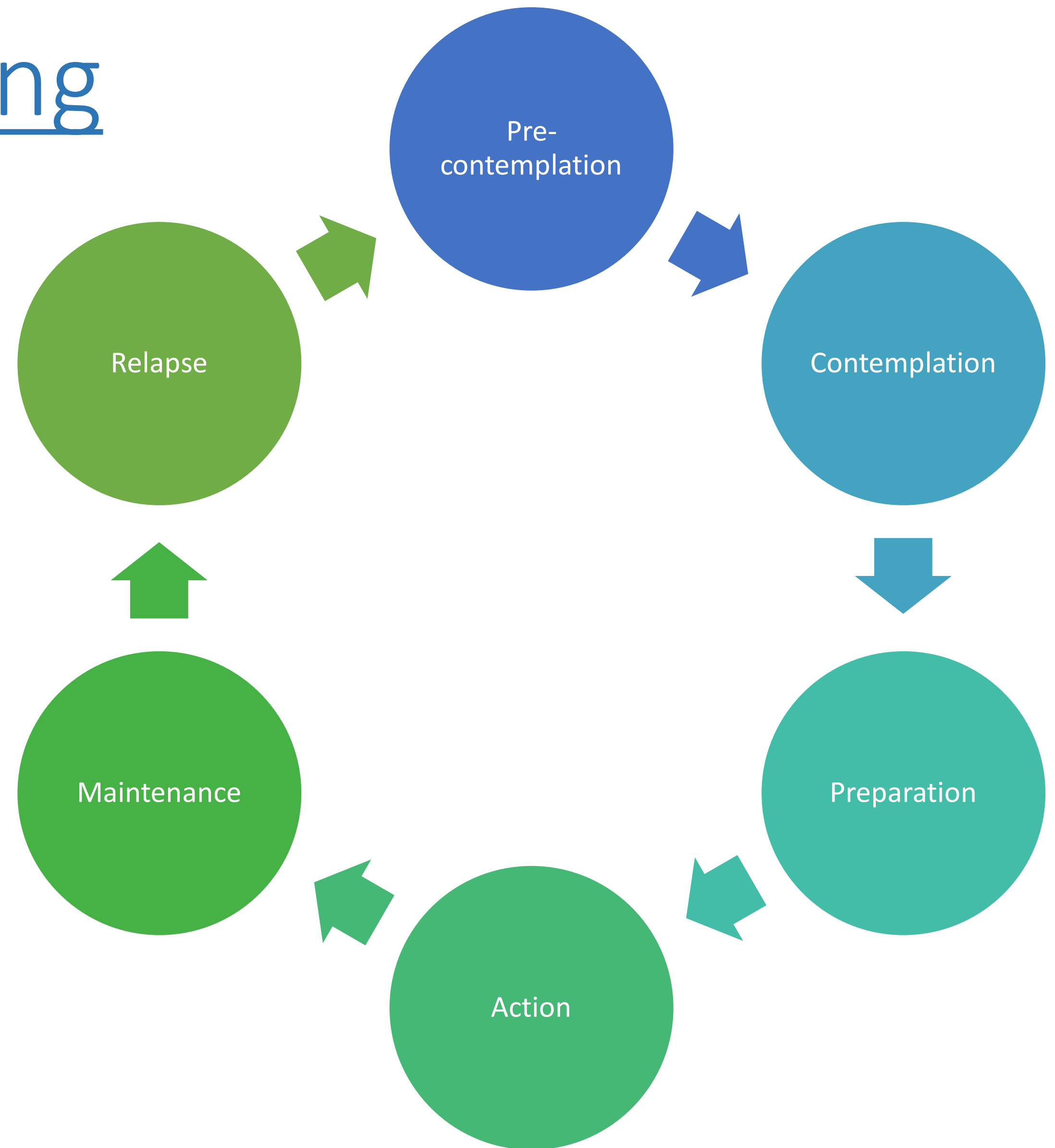
William R. Miller
Stephen Rollnick

Definition

“Motivational interviewing is a client-centered, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence.”

Motivational Interviewing

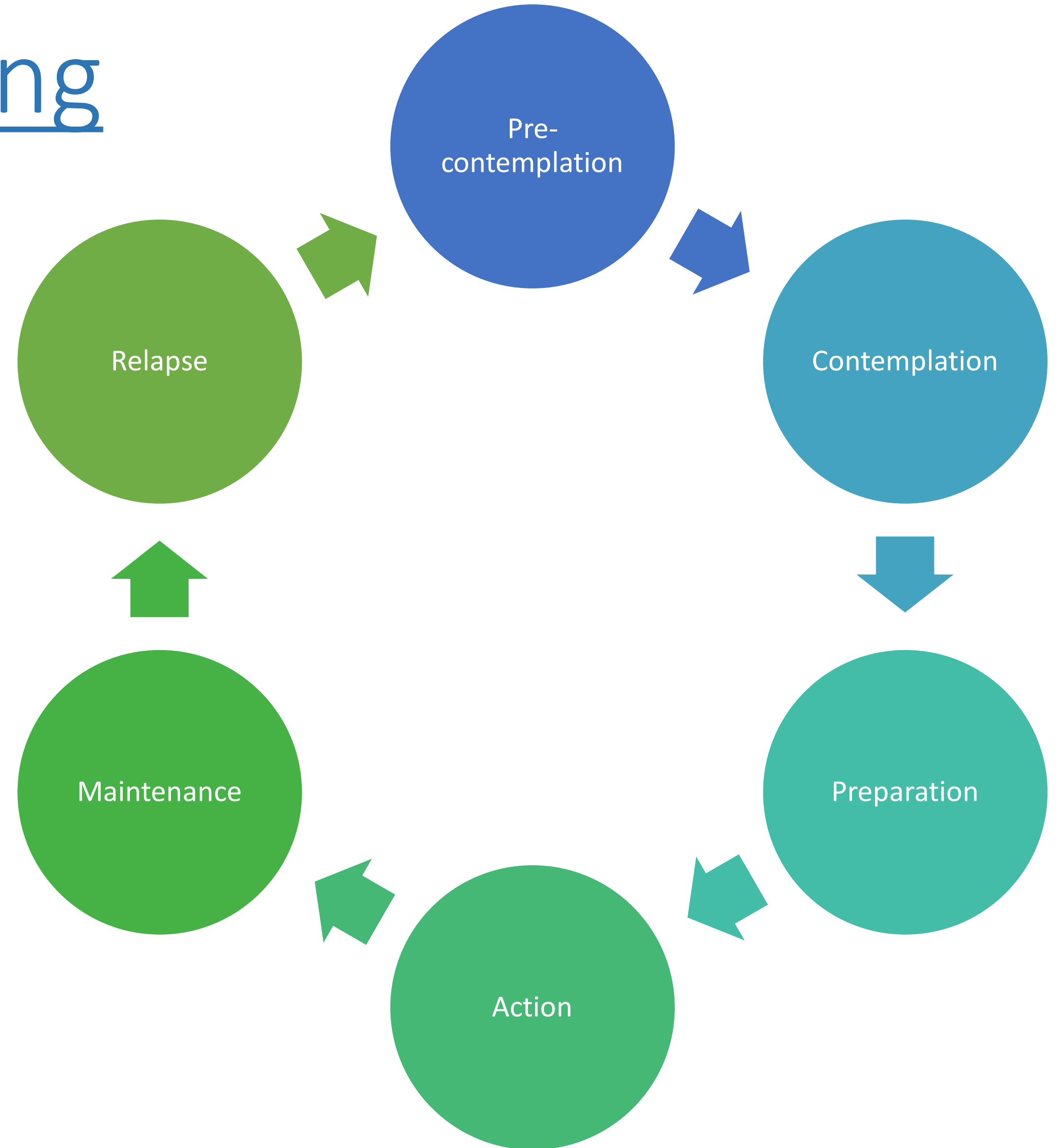
- Evidence-based*
- Help patients resolve their ambivalence and move through the stages of change
- "Change talk" facilitates change
- Listen more than you speak
- Resist the *"righting reflex".* If you take a side, your patient will take the other side. We want the patient making the argument for change, not the argument against it.



* VanBuskirk K & Wetherell J, J Behav Med. 2014 Aug; 37(4): 768-780

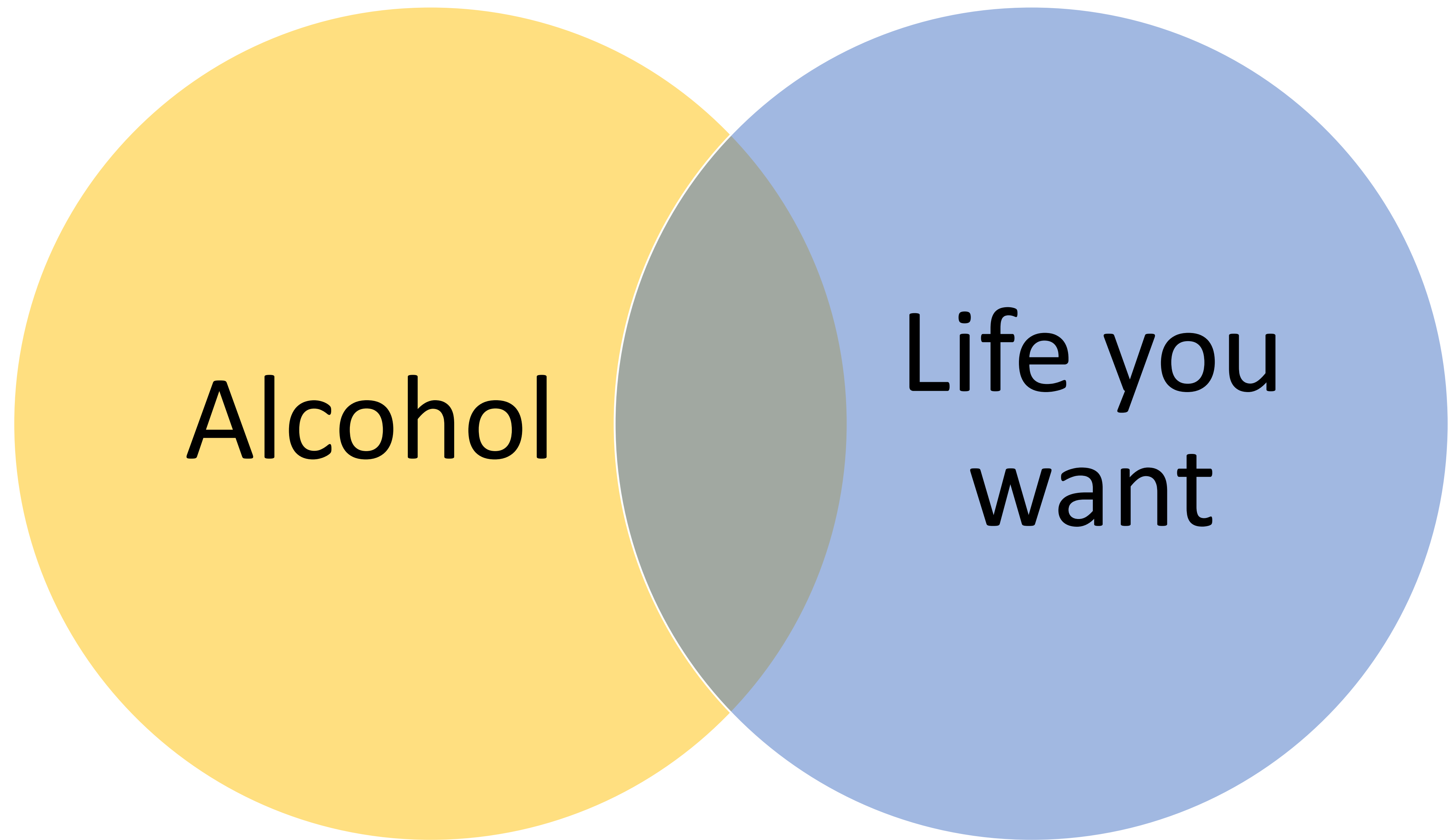
Motivational Interviewing

- Confrontation entrenches denial
- More of a dance than a fight
- People change when they see the benefits of change outweighing the cost
- Meet the patient where they are at.



“People are generally better persuaded by the reasons which they have themselves discovered than by those which have come into the mind of others.”

—Blaise Pascal


Alcohol
Life you want

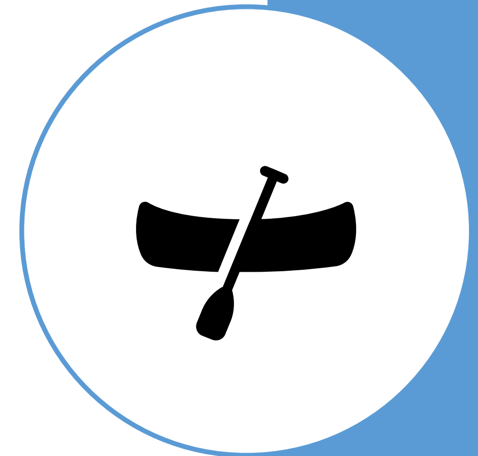
Motivational Interviewing

Alcohol

Life you want

MI Communication Style

- Open-ended questions
- Affirmations that foster positive feelings
- Reflections that indicate understanding
- Summaries that extend reflections and capitalize on decisional progress to build momentum



Open-Ended Questions

- Typically begin with:
  - How…
  - What…
  - Tell me about…
- Keep the patient talking
- Allow ambivalence and discrepancy to evolve

Affirmations

- Praise positive behavior or change talk
- Support the patient
- Acknowledge the patient’s struggle
- Respects autonomy
- Builds rapport

Reflections

- Requires active listening
- Assures patient you are understanding / empathizing
- Strengthens therapeutic relationship
- Builds rapport / trust
- Keeps the patient talking
- Used wisely, it can help frame ambivalence

Patient: “I know I scored high on that test, and I know my wife might have and opinion, but I just drink like all my friends. I don’t think it’s a big deal. I wish people would just get off my back.”

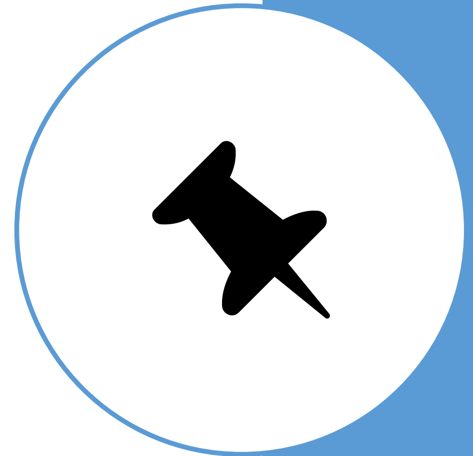
Simple reflection: So you’re not too concerned about your drinking.

Complex reflection (makes a guess, infers meaning, typically about emotions): So you feel attacked or judged when people talk about your drinking.

Double-sided reflection (reflects back both sides of the ambivalence): On the one hand you don’t think your drinking is a problem, but on the other you acknowledge that your wife may see things differently.

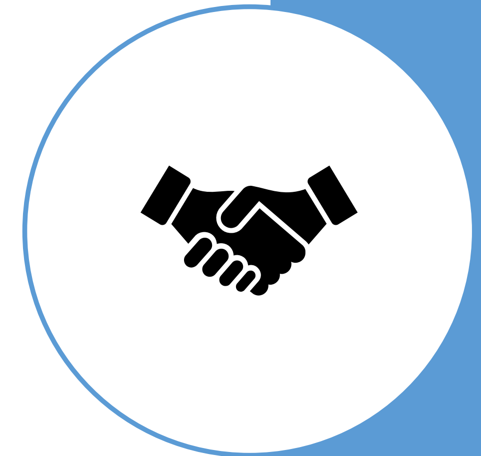
Summaries

- Periodically summarize where the conversation has gone
- You decide on what to summarize *(HINT, ambivalence & change talk)*
- Double-sided reflections work well
- Capitalize on gains & build momentum
- “So let me make sure I understand where you’re at. On the one hand, you really feel like alcohol helps you cope with stress, but, on the other, you see it starting to interfere with your family life.



MI Basic Principles

- Develop Discrepancy
- Avoid Argumentation
- Roll with Resistance
- Express Empathy
- Support Self-Efficacy



Develop Discrepancy

"So what I'm hearing is that family is the most important thing in your life, but that you have also been missing your children's soccer games a lot because of your drinking…"

"I get the sense that, on the one hand, your health is really important to you, but, on the other hand, you haven't been able to cut back enough to see improvement in your liver enzymes."

Roll with Resistance

Patient: “Work is really stressful right now. There is no way I can even think about drinking less until things settle down”

Doctor: “Sounds like work is stressful and you’re having a hard time relaxing.”

Wrong: “Alcohol is a poor way to cope with stress and you need to cut back.”

Capitalize on Change Talk

- “I would like to…”
- “I wish I could…”
- “I might consider…”
- “I think I could…”
- “I think it’s important because…”
- “I know I have to…”
- “I think I can…”

Be sure to affirm these and reflect them back.

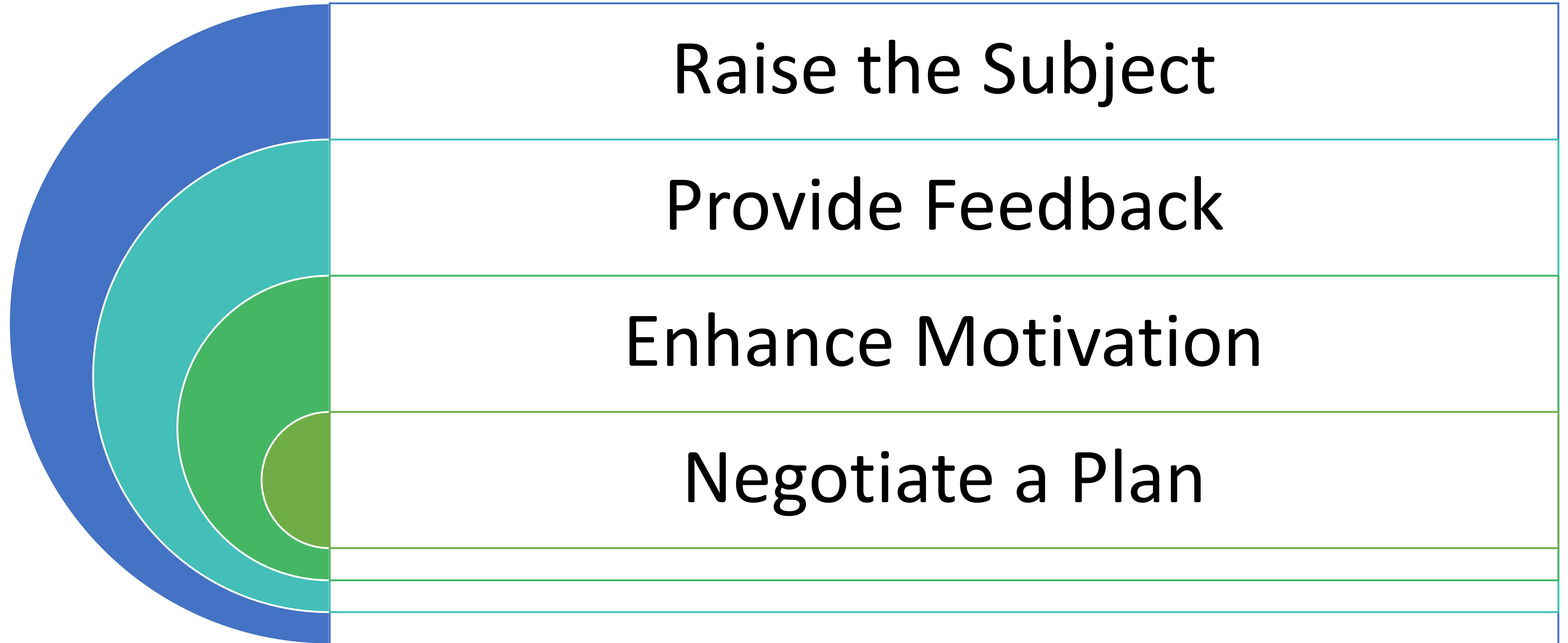
Motivational Interviewing Example

- https://youtu.be/EvLquWI8aqc

Motivational Interviewing Example

- https://www.psychotherapy.net/video/motivational-interviewing-adolescent-substance-use

SBIRT Brief Intervention Using MI



Low-risk drinking limits

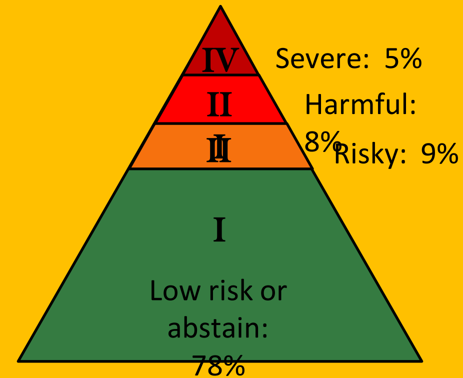
	Drinks per week	Drinks per day
Men	14	4
Women	7	3
All ages >65	7	3
Pregnancy	0	0

12 oz. beer

5 oz. glass of wine

1.5 oz (shot) of liquor

Drinking among adult primary care patients



Some risks of unhealthy drinking

Depression. Anxiety. Aggressive behavior.

Cancer of the throat and mouth.

Frequent colds, reduced resistance to infection, Increased risk of pneumonia.

Liver damage.

Pregnancy: Birth defects, miscarriage, premature birth, low birth weight.

Sexually transmitted diseases. Men: erectile dysfunction.

Painful nerves. Numb, tingling toes.

Alcohol use disorder. Insomnia. Memory loss.

Premature aging.

Hypertension. Heart failure. Anemia. Blood clotting. Breast cancer.

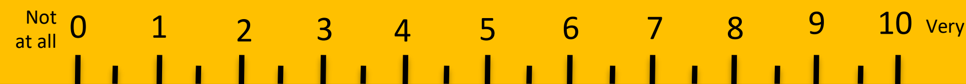
Vitamin deficiency. Bleeding. Stomach inflammation. Diarrhea. Malnutrition.

Inflammation of the pancreas.

Impaired sensation leading to falls.

Failure to fulfill obligations at work, school, or home. Car accidents. Legal problems.

Readiness ruler



Steps of the brief intervention

Raise the subject

- "Thank you for answering these questions - is it ok if we review them together?"
- If yes: "Can you tell me in your own words about your drinking or drug use? What does a typical week look like?"

Provide feedback

- "I recommend all my patients drink less than low-risk limits (or abstain from drug use). This can prevent new health problems or current ones grow worse."
- "Most patients who score at this level have trouble cutting back, and experience repeated negative consequences from their use. I recommend these patients abstain."

Enhance motivation

- "What do you like about your drinking/drug use? What do you not like, or are concerned about when it comes to your use?"
- "On a scale of 0-10, how ready are you to cut back/receive specialized treatment? Why do you think you picked that number rather than a ____ (lower number)?"

Negotiate plan

- Summarize conversation. If patient is ready to change: "What steps do you think you can take to reach your goal of cutting back/seeking specialized treatment?"
- "Can we schedule an appointment to check in and see how your plan is going?"

Oregon hotline that quickly identifies treatment resources for patients experiencing a substance use disorder: **1-800-923-4357**

Interpreting the AUDIT and DAST screening tools

Score	Zone	Action
AUDIT: Women: 0-3 Men: 0-4 **DAST:** 1-2, plus no daily use of any substance; no weekly use of drugs other than cannabis; no injection drug use in the past three months; not currently in substance abuse treatment.	**I Low Risk**	**AUDIT:** Brief education **DAST:** Brief education; monitor and reassess at next visit
AUDIT: Women: 4-12, Men: 5-14 **DAST:** Women and Men: 1-2	**II Risky**	Brief intervention
AUDIT: Women: 13-19, Men: 15-19 **DAST:** Women and Men: 3-5	**III Harmful**	Brief intervention (consider referral)
AUDIT: Women and Men: 20+ **DAST:** Women and Men 6+	**IV Severe**	Referral to specialized treatment

Billing codes

Screening only	
Commercial & Oregon Medicaid	CPT 96160
Medicare	G0442

Screening plus brief intervention	
Commercial & Oregon Medicaid	≥15 min: CPT 99408 ≥30 min: CPT 99409
Medicare	≥15 min: G0396 ≥30 min: G0396

Raise the Subject

- “Thank you for answering these questions. Is it OK if we review them together?”
- ”Would you mind taking a few minutes to discuss your screening results?”

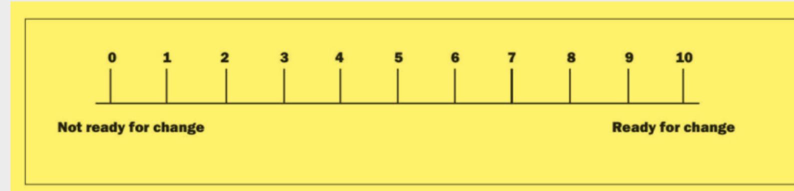
Provide Feedback

- Review results and provide education.
- Express concern about their well being.
- Discuss NIH low risk drinking limits
- Ask: “What are your thoughts about this information?”

Enhance Motivation

- “What do you like about drinking?”
- “What do you not like?”
- “What concerns you?”
- “What problems has drinking caused you?”
- ”What about the health risks?”
- “Why do you think your spouse worries about your drinking?”
- “How does your current drinking fit with what matters most to you?”

Enhance Motivation



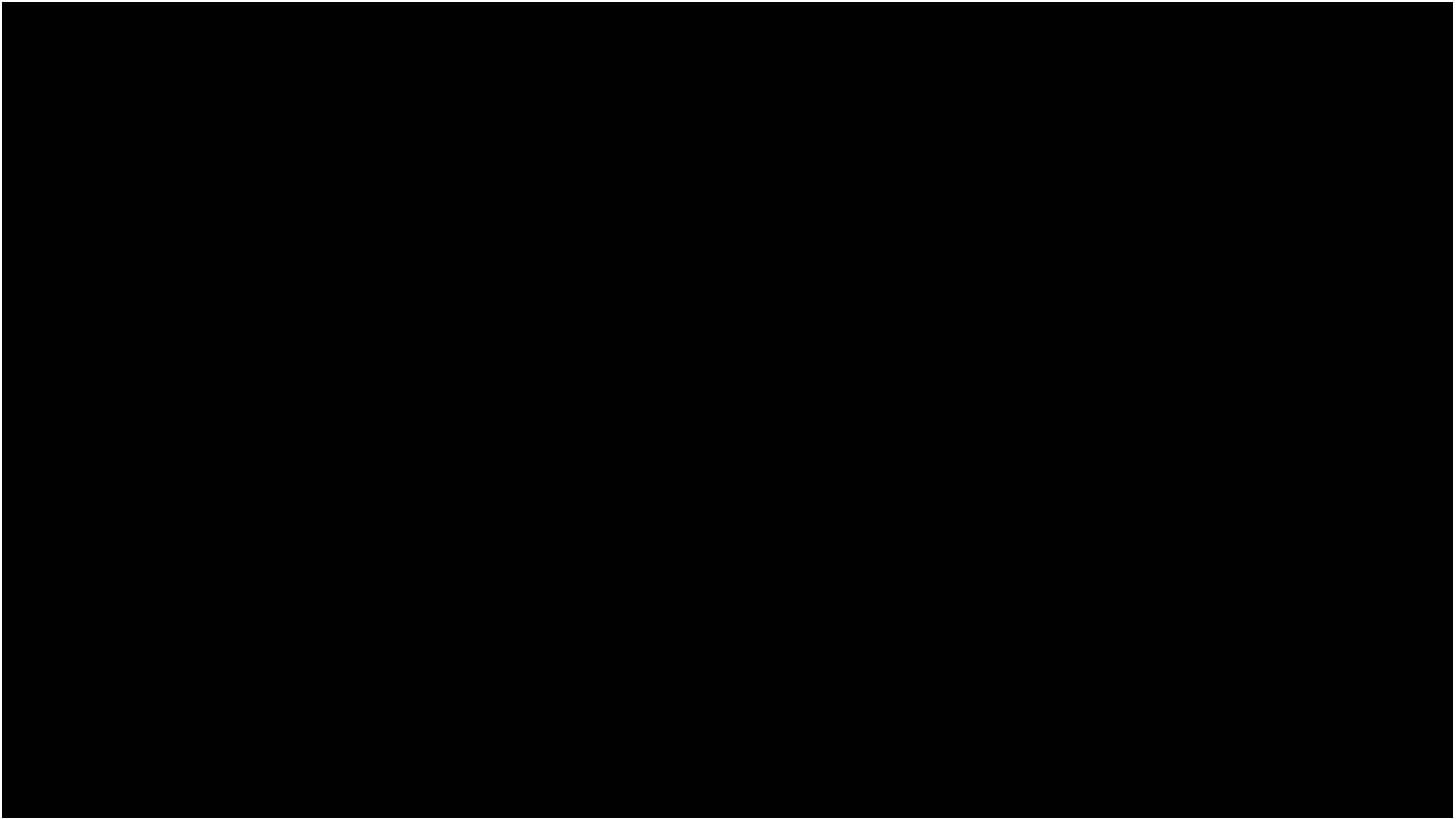
- “Why do you think you picked ___ instead of, say, (lower number) ?”
- “How might your benefit from cutting down or stopping drinking?”
- Summarize
  - Reflect patient identified pros/cons
  - Develop discrepancy.
  - Capitalize on change talk to help resolve ambivalence
  - Reinforce motivation to change

Enhance Motivation

- Make a list of pros and cons
- Probe the tough patients:
  - “Tell me about a typical night drinking”
  - “Tell me about your relationships”
  - “How are your finances?”

Negotiate a Plan

- What are your thoughts about our conversation?
- What steps are you willing to take?
- How can I help?
- Set attainable goals
- Medication?
- Referral?
- Arrange Follow-up



Motivational Interviewing Example

- https://youtu.be/AcGCRJcfl4w

SBIRT Resources

- https://www.sbirtoregon.org – Includes online screening app which includes AUDIT, ASSIST, PHQ-9 with printable and electronic results
- http://www.sbirtcolorado.org
- http://sbirt.vermont.gov
- https://www.integration.samhsa.gov/clinical-practice/sbirt
- http://sbirtinaction.org
- http://www.sbirtonline.org