Orientation to Diagnosis and Initial Therapy in Substance Use Disorders

JABSOM, UHM, Project ECHO

ADDICTION, ABBREVIATED – 2018

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Affiliations and Obligations (DISCLOSURE STATEMENT)

- I have no commercial contacts with pharmaceutical or other agencies who might benefit by or suffer from my presentation.
- No medical students or resident physicians were harmed in the preparation of this talk.
- I have been known to prescribe medications, on occasion. I am not taking any, though many believe that I should.
- I shall warn you if I propose any off-label therapies or medication uses.

Obligatory Learning Objectives

By the end of my presentation, participants will be able to:

- Correctly differentiate between substance abuse, substance dependence, and alcohol use disorders using DSM5 nomenclature
- Distinguish between community-based recovery and formal therapy, and articulate the connection between the two.
- Describe 3 current effective pharmacotherapies for substance use disorders
- Satisfactorily and objectively discuss the role of 12-step programs in recovery, to a patient.
- Name or be able to readily locate two effective screening tools of substance use disorders

Chronic Illness Paradigm

- Elevated cholesterol
- High blood pressure
- Diabetes
- Arthritis
- Alcohol problems, SUDs*

*N.B., in all but SUDs, there is an assumption of on-going, lifelong care and monitoring...

Characteristics of Chronic Illness

- Late onset of clinical symptoms
- Unpredictable course
- Complex etiology
- Progressive: No cures; remissions are the therapeutic benchmark
- Treatment is behavioral (adherence & monitoring)

SUBSTANCE Use Disorders, DSM5

Criteria for Substance Use Disorder

A. A problematic pattern of substance use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

*

SUBSTANCE Use Disorders, DSM5 #1/3

Criteria for Substance Use Disorder

1. Substance is often taken in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control substance use
3. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.
4. Craving, or a strong desire to use the substance
5. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home.
6. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance.

SUBSTANCE Use Disorders, DSM5 #2/3

Criteria for Substance Use Disorder

7. Important social, occupational, or recreational activities are given up or reduced because of substance use.
8. Recurrent substance use in situations in which it is physically hazardous.
9. Substance use is continued despite having knowledge of having a persistent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of the substance to achieve intoxication or desired effect
    b. A markedly diminished effect with continued use of the same amount of the substance.

SUBSTANCE Use Disorders, DSM5 #3/3

Criteria for Substance Use Disorder

11. Withdrawal, as manifested b either of the following:
    a. The characteristic withdrawal syndrome for the substance.
    b. The substance (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

- Early remission: >3 mos., <12 mos. (no criteria other than craving/desire)
- Sustained remission: >12 mos. (no criteria other than craving/desire)

- **Mild: 2-3 symptoms**
- **Moderate: 4-5 symptoms**
- **Severe: 6+ symptoms**

Substance Dependence (brief)

- Organization around acquisition, use, recovery from effects, of the drug
- Dosage and frequency are not the issue
- Consequences are the issue
- Adaptation and deterioration are hallmarks
- *Ambivalence* is the dominant psychodynamic

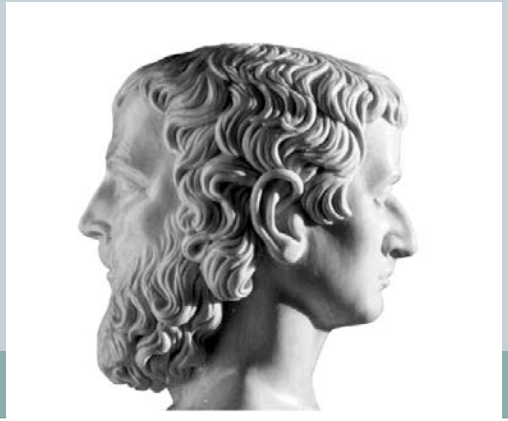
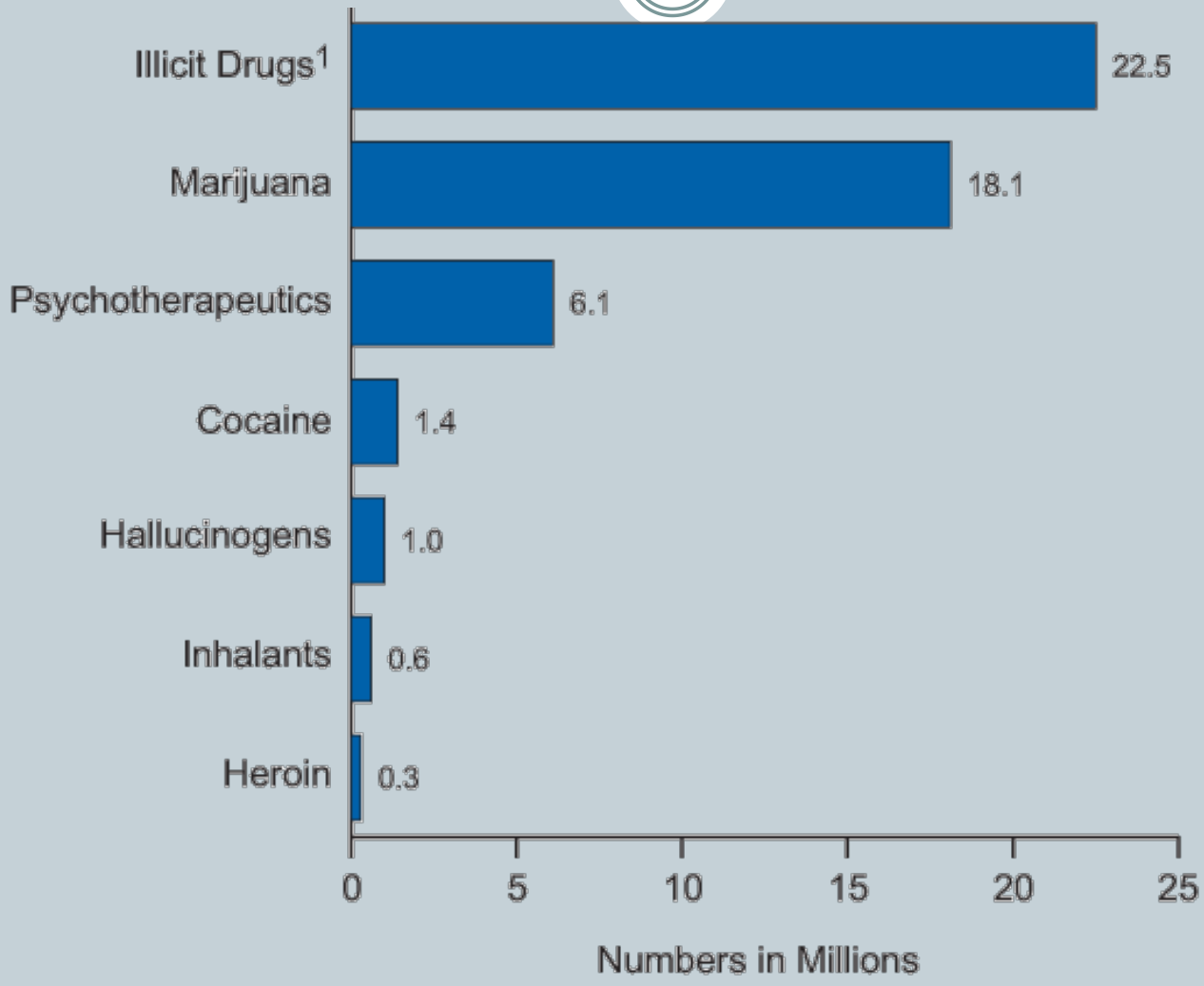


Figure 2.1 Past Month Illicit Drug Use among Persons Aged 12 or Older: 2011



NHSDU, SAMHSA 2012

Percent EtOH Use 2017

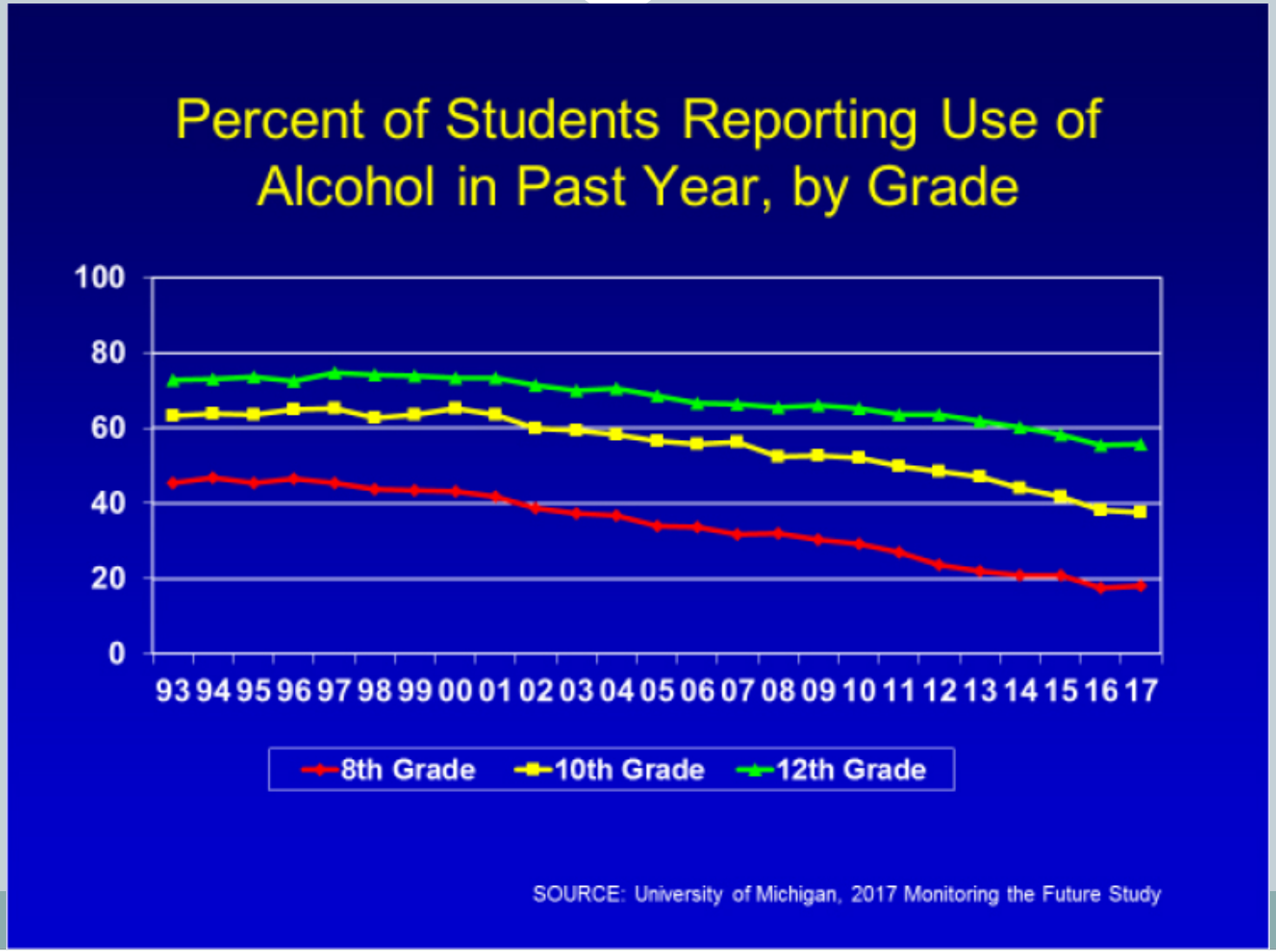
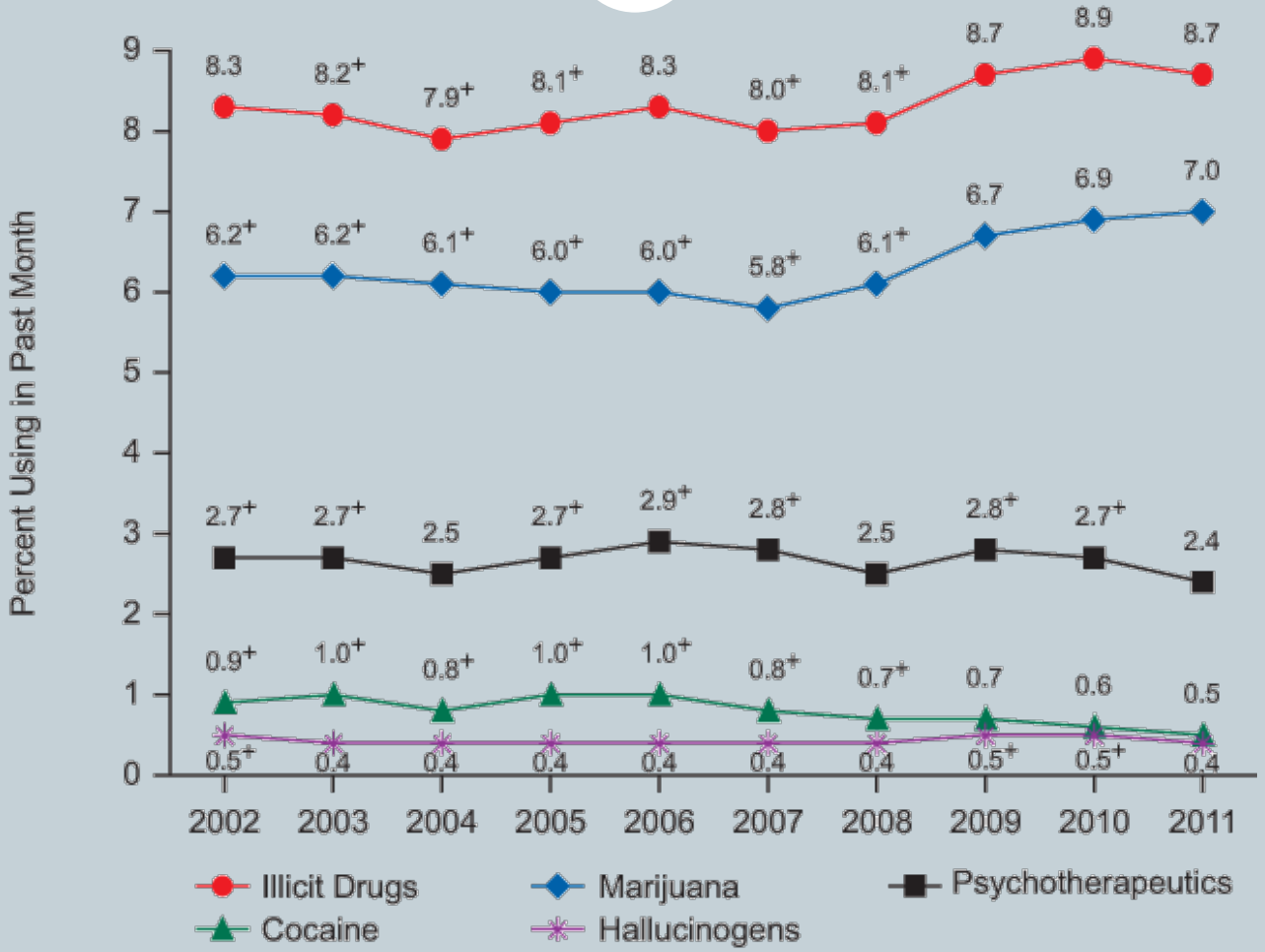


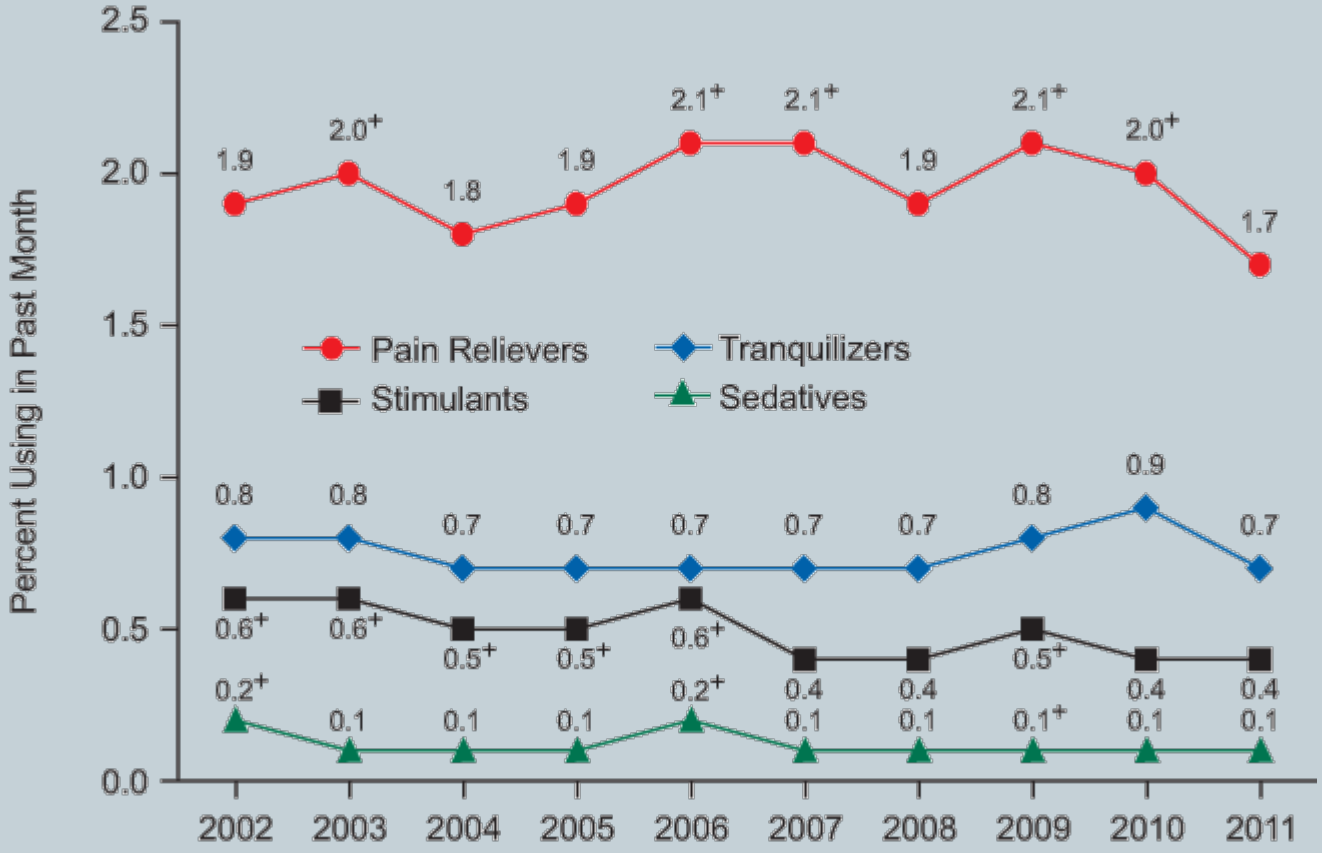
Figure 2.2 Past Month Use of Selected Illicit Drugs among Persons Aged 12 or Older: 2002-2011



(Sum)

NHSDU, SAMHSA 2012

Figure 2.3 Past Month Nonmedical Use of Types of Psychotherapeutic Drugs among Persons Aged 12 or Older: 2002-2011

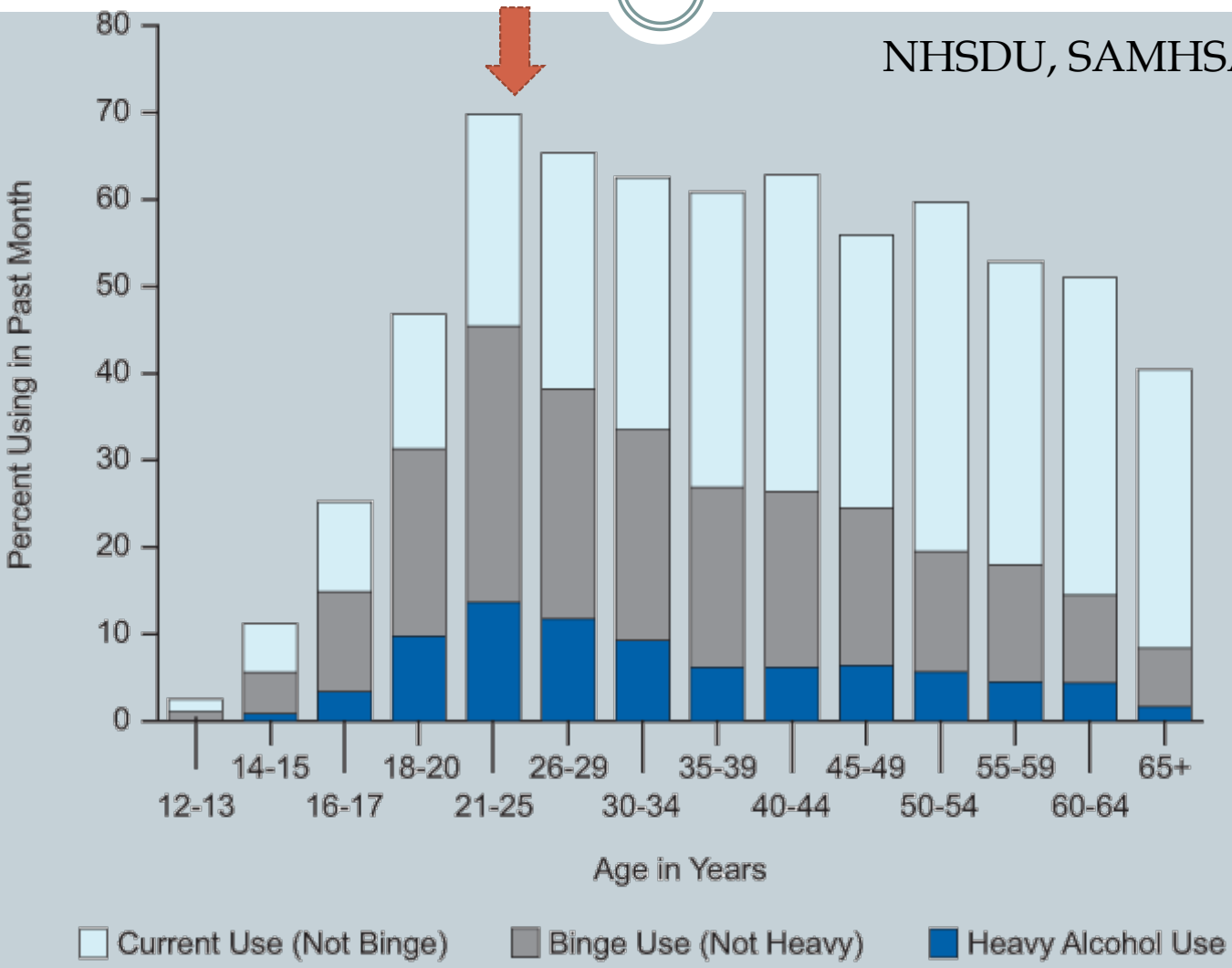


(Sum)

NHSDU, SAMHSA 2012

Figure 3.1 Current, Binge, and Heavy Alcohol Use among Persons Aged 12 or Older, by Age: 2011

NHSDU, SAMHSA 2012



Public Health Model

Optional

Infection characteristics (e.g., influenza)

- Contagion
- Parasite cannot kill host
- Ease of infection assures prevalence
- Geographic spread follows lines of commerce

Drug traits (e.g., methamphetamine)

- Users beget users
- "Performance drug" precedes lethality
- Inhalation/injection induces rapid addiction
- Market determines distribution

Drug Marketing Models

Optional

Alcohol

- Advertising
  - Mass
  - Role-modeling
  - Induction (peer)
- Association with benefits
  - Amaretto gets you sex
  - Beer makes you a Guy; "Miller Time"
  - Wine demonstrates your culture & sensitivity
- "The responsible drug"
- Tradition of use: Guaranteed base (10% buy 60% of production)
- Availability
  - Easy to manufacture
  - Easy to transport (Grecian urns)
- Too many competitors
- Taxation cuts into profit margin

Opioids

- Competitors abound, but interchangeable
- Legitimization
  - Analgesia
  - "4th vital sign"
  - Service-associated
- Advertising is 1:1 or inductive
- Marketing is cheap: packaging unimportant, highly portable
- Fabulous profit margin
- Amway model (although closer to Ponzi Scheme)
- Treatment centers can be distribution centers
- Availability:
  - Pharmacological
  - Street
  - Iatro-iatrogenic (tramadol)

MEDICATIONS USEFUL IN ALCOHOL USE DISORDER

- Antabuse (Disulfram) - validated
- Opiate Antagonists (Naltrexone) - validated
- Anticonvulsants, Trazodone (withdrawal and sleep) – weakly validated
- Acamprosate – weakly validated
- Ondansetron, Topiramate – weakly validated
- SSRIs/antidepressants, antipsychotics – *unvalidated*
- Sedative-hypnotics, benzodiazepenes - ***contraindicated***

ANTABUSE (disulfiram)

Causes Adverse Symptoms:

ADH ALDH

ETOH $\leftarrow\rightarrow$ Acetaldehyde $\leftarrow X\rightarrow$ Acetate

Nausea, flushing, headache, hyperperistalsis, hypotension, hyperemesis, collapse

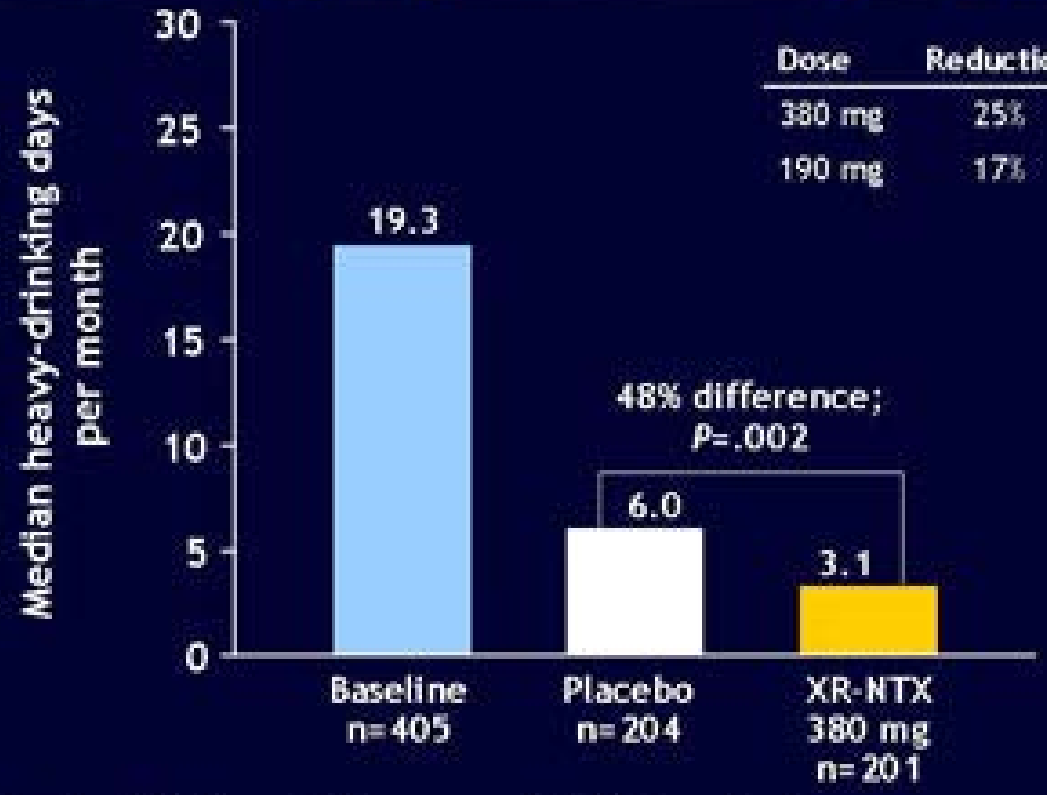
Naltrexone (Revia/Vivitrol)

FDA Approved For Treatment of Alcohol Dependence 1994.

Mechanism of Action: Opiate Antagonist

- Blocks linkage between Alcohol and endogenous
- Opiate system and decreases positive, reinforcing effects of Alcohol
- Can be used to initiate abstinence or decreases use as well as prevent relapse. Safe to take if patient relapses to Alcohol use.
- Reduces Cue-Induced Craving for Alcohol
- May be more effective in patients with early initiation of alcohol use and strong family history

Extended-release Naltrexone Reduces Heavy-drinking Days: Full Study Population

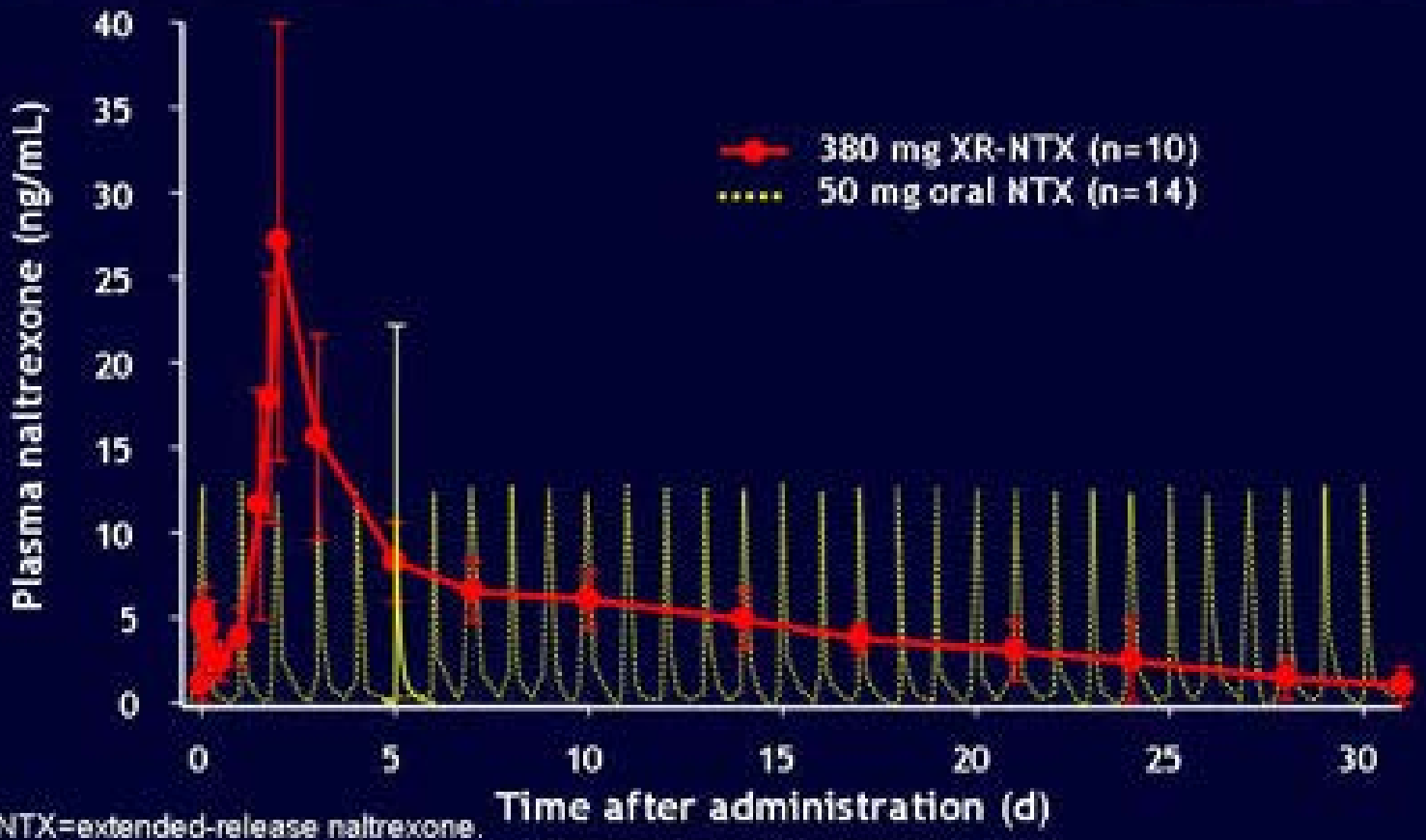


Dose	Reduction	*P* value
380 mg	25%	.03
190 mg	17%	.07

Heavy drinking defined as ≥5 drinks per day for men and ≥4 drinks per day for women.

Garbutt JC et al. JAMA. 2005;293:1617-1625.
Data on file. Alkermes, Inc.

Injectable Extended-release Naltrexone Maintains a Steady-state Plasma Concentration



XR-NTX=extended-release naltrexone.

Data on file. Alkermes, Inc.
Dean RL. *Front Biosci*. 2005;10:643-655.

Summary-Alcohol Pharmacotherapy

1. There are several well-proven medication treatments available for treatment of alcohol dependence
2. Combination treatment with naltrexone and acamprosate should be strongly considered
3. Psychosocial treatment continues to be the primary method of treatment and all patients should be in psychosocial treatment as well as pharmacotherapy.

Opiate Receptors and effect of Agonist

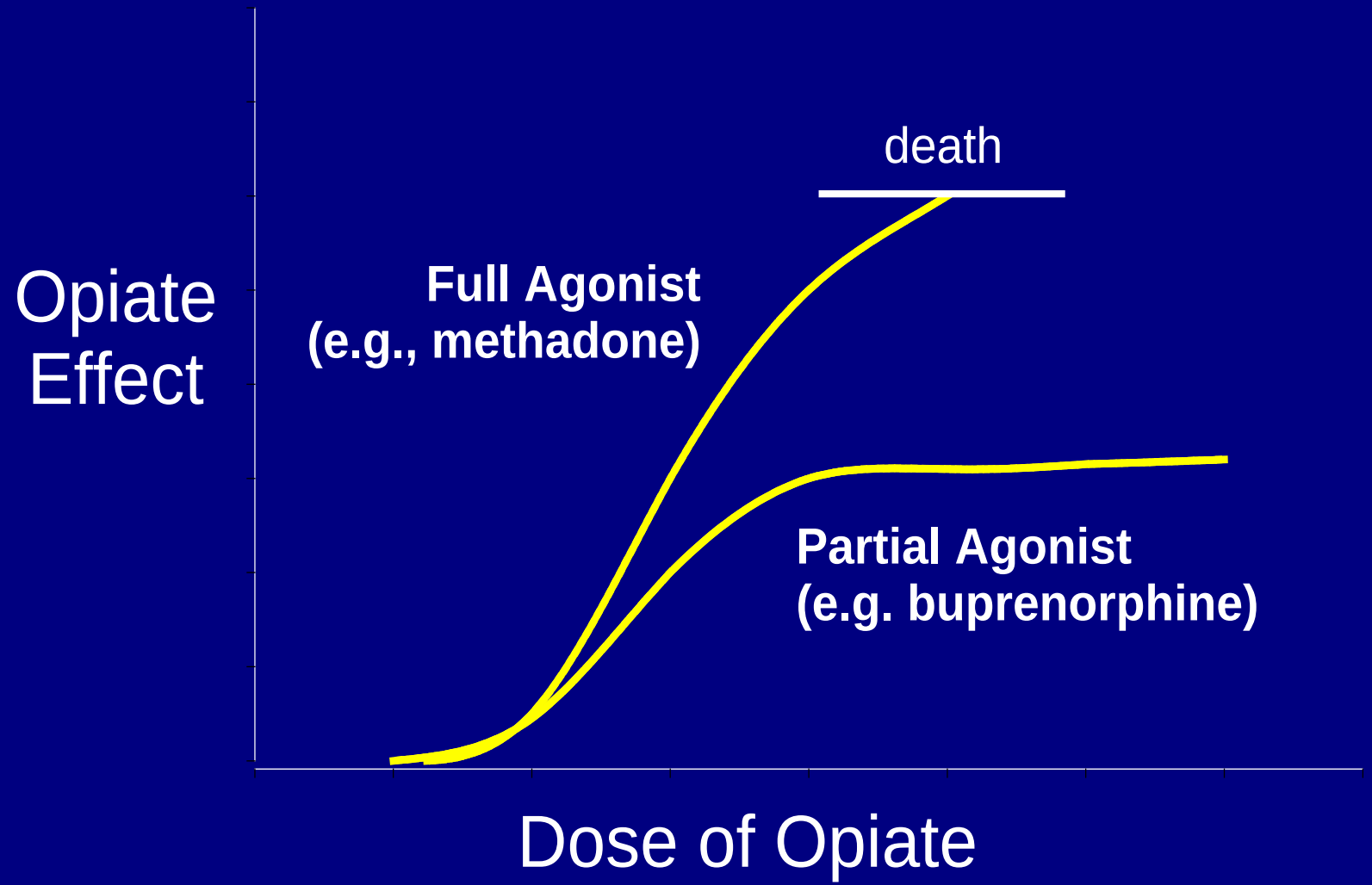
Optional

Mu_1 (μ_1)	analgesia, euphoria
Mu_2 (μ_2)	constipation, respiratory depression
Kappa	spinal analgesia, dysphoria
Sigma	hallucinations, convulsions

Classification of Ligands by Effect on Mu receptor

Agonist	Morphine-like effect (e.g., heroin)
Partial Agonist	Weak morphine-like effects with strong receptor affinity (e.g., buprenorphine)
Antagonists	No effect in absence of an opiate or opiate dependence (e.g., naloxone)

Partial vs Full Opiate Mu Agonist



Buprenorphine: Advantages over Methadone

1. Not encumbered by regulatory structure of methadone dispensing
2. Better safety profile in overdose
3. Minimal subjective effects (e.g., sedation) following a dose
4. Lower level of physical dependence
5. It's not methadone (better press…)

Buprenorphine: Disadvantages

- Will not adequately meet need of patients requiring higher-dose methadone (e.g., >120 mg/day)
- Greater Medication Cost
- Minimal subjective effects (e.g., sedation) following a dose*
- Lower level of physical dependence (i.e. patients can discontinue treatment)*
- Not detectable in routine urine toxicology screening

Methadone

Marie Nyswander, 1919–1986

FDA Approved 1973 (detox and maintenance)

Long-acting opiate, full agonist at mu receptor (Dole & Nyswander)

- ~200,000 actively in treatment
- Good evidence of efficacy in reducing and stopping Opiate use at "blocking dose" (usually 80-120mg daily)
- Good evidence of long term safety
- Needs to be dosed/dispensed in Methadone clinic (MMTP)
- Side effects of sedation, sleep disturbance, danger of overdose and combination with other drugs, especially sedative-hypnotics
- Not effective in reducing or stopping abuse of other drugs

Naloxone (digression)

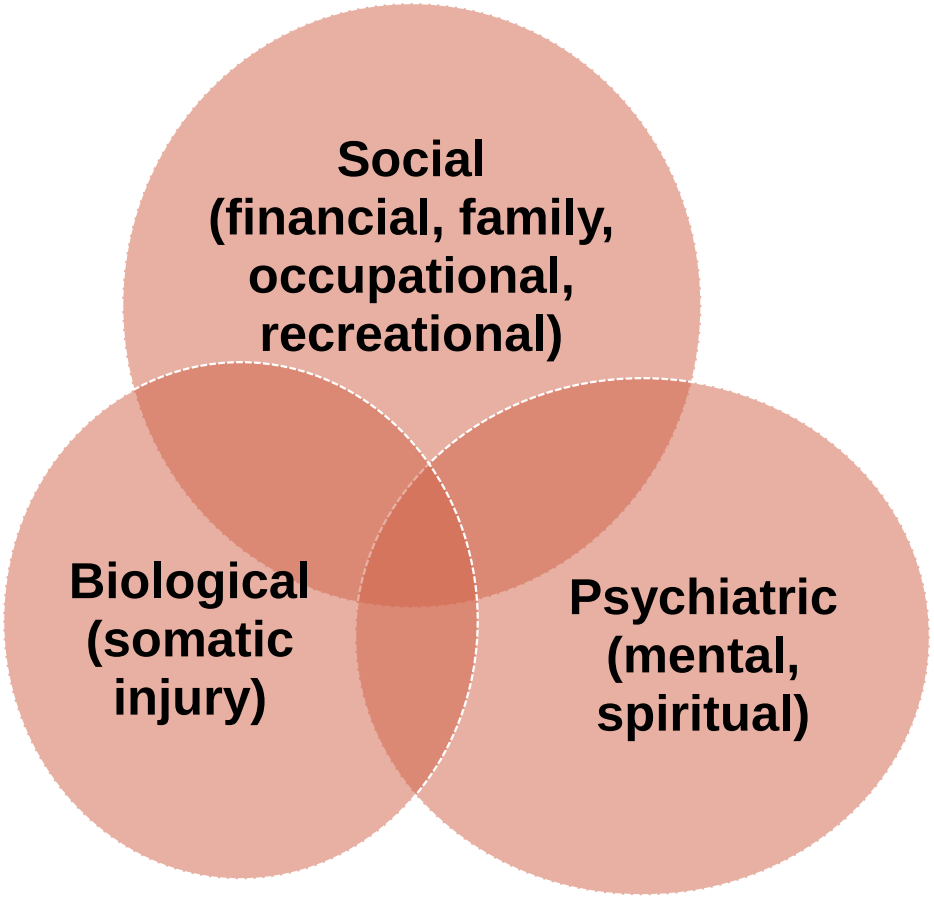
- ...But as long as we're talking about opioid-blockers, and because this is very important, let's take a quick tangent onto naloxone, essentially the short-acting, injectable analog of naltrexone – and its use in overdose resuscitation.

Resuscitation in Opioid Intoxication & Arrest

- NY State Working-Group on Resuscitation 2016
- https://www.health.ny.gov/diseases/aids/general/opioid_overdose_prevention/docs/resuscitation_training.pdf
- "The most recent American Heart Association (AHA) guidelines prioritize chest compressions and defibrillation for cardiac arrest. Rescue ventilation is part of CPR algorithms designed for professional first responders and health care workers, but CPR training for community responders does not include rescue ventilation anymore."
- The issue of chest compressions, rescue breathing, or both is rendered relatively moot in a setting such as Honolulu, where first responder time is commonly 4-8 minutes. Neighbor island experience argues for combined approach, but most lay persons are reluctant to perform rescue breathing.
- All first responder units (Fire, EMS, Water Safety; increasingly PDs) in Hawaii carry naloxone.
- **The naloxone can't circulate if the heart is not pumping.**

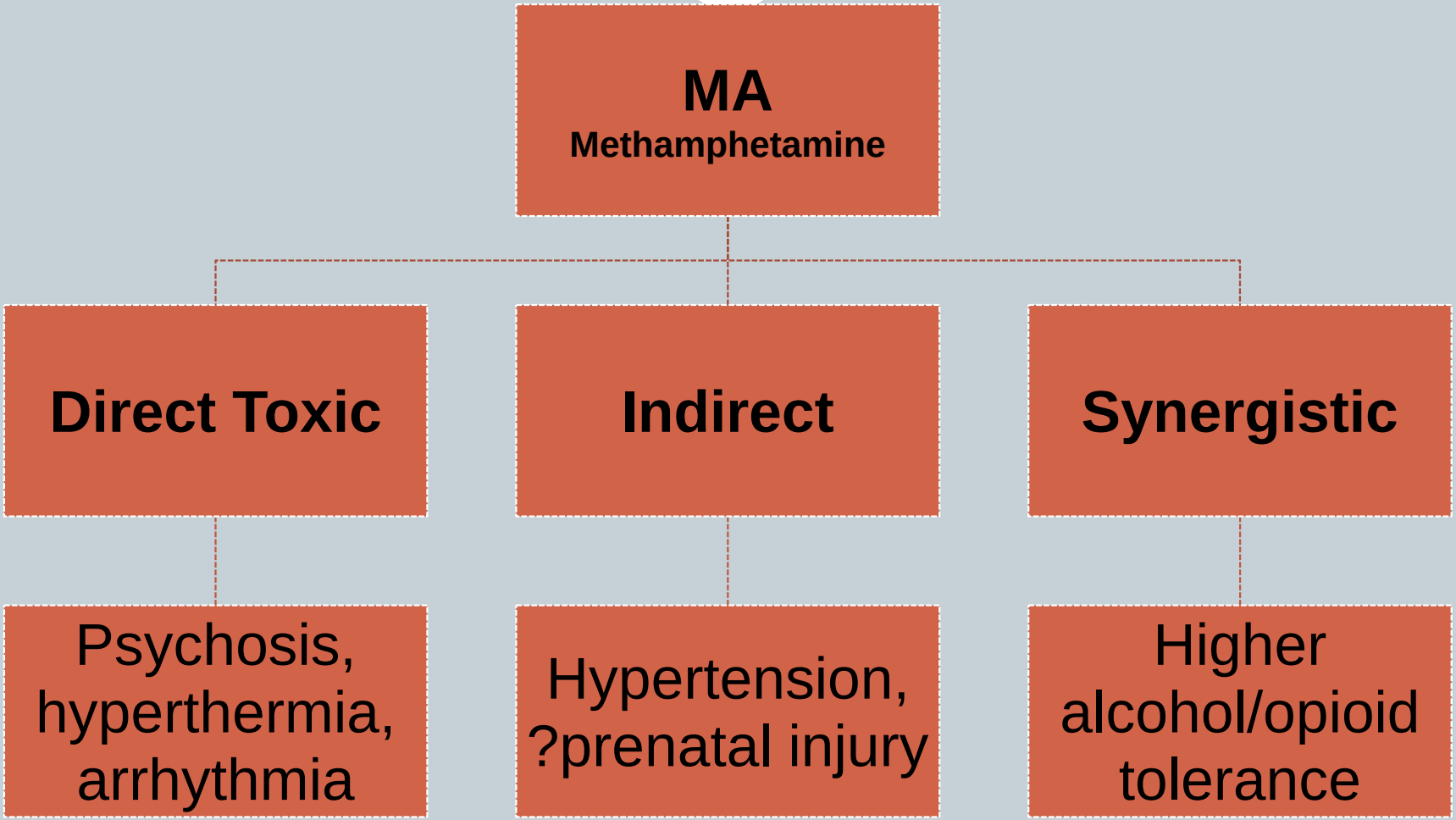
Injury Interplay

Optional



Subdivisions of Injury (organic)

Optional



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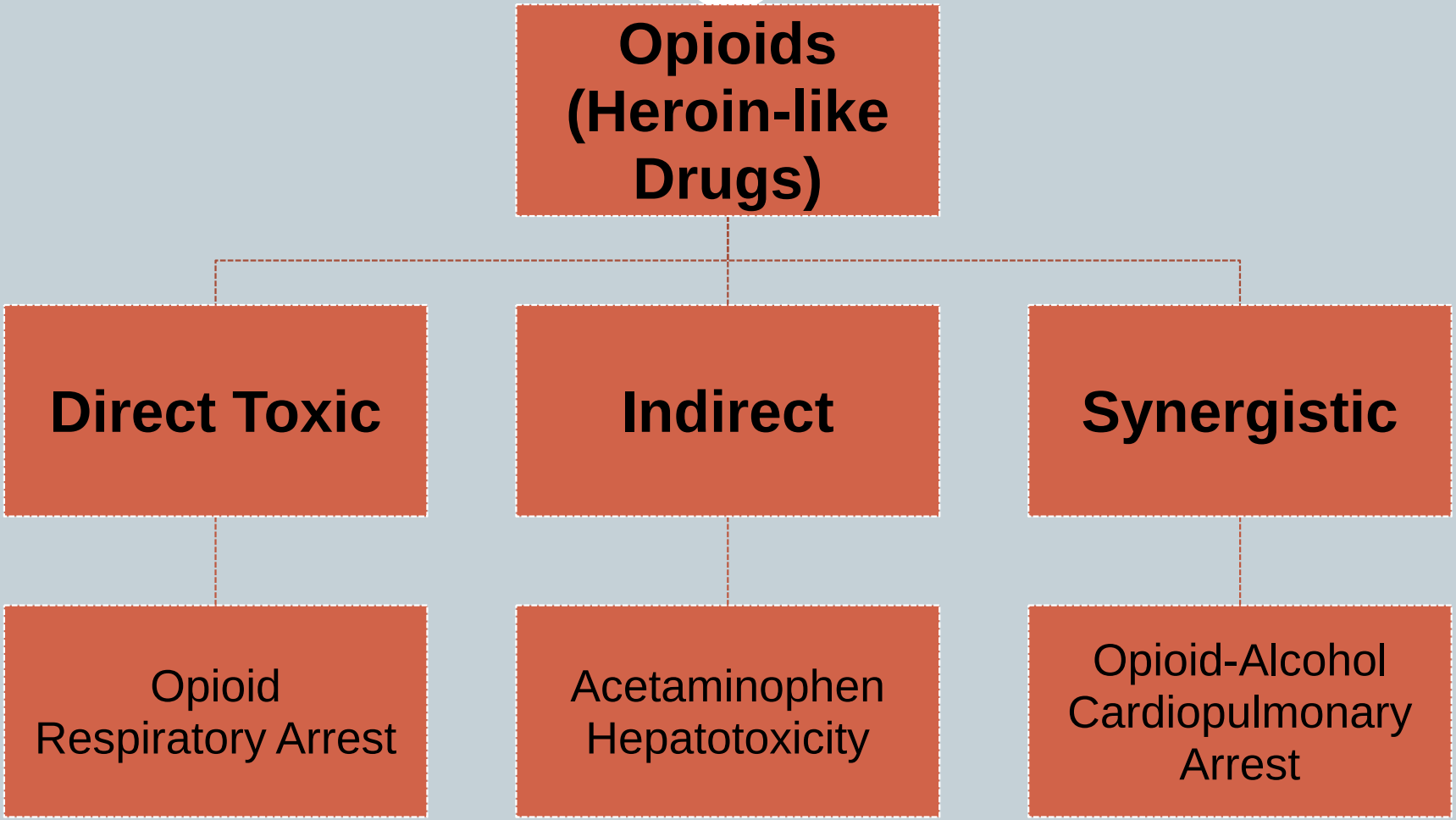

Nicotine Dependence

Nicotine Replacement Therapies (NRT): gum, patch, spray

- Increase quit rates 1.5 – 2x
- Meds + therapy = 15-30% quit rate
- Can combine passive and active NRT
- Duration of therapy – 8-12 weeks
- Effects of meds wane over time
- Vaping is *not* a validated approach

Non-Nicotine Replacement Therapy (NNRT)

- Bupropion (Welbutrin) – mixed antidepressant, MOA unknown
- Varenicline (Chantix) – nicotine partial agonist

Mutual Assistance

12-Step Groups (Community-Based Peer Therapy)

- Cluster of children crossing the road
- No driver/facilitator
- School = transitional destination (recovery)
- Students are peers
- Hazardous road
- Slow, conservative

Conventional Group Therapy

- The school bus
- Driver = facilitator
- Students = addicts under treatment
- School = transitional destination (recovery)
- Formal, does not generalize to community

Kids

Bus

Resources

- http://www.integration.samhsa.gov/clinical-practice/screening-tools#drugs Multiple links to screening instruments for SUDs
- Handout on 12 Step Programs (Haning), Ries R. Et al. (Eds.), Principles of Addiction Medicine 5th Ed. 2014, ASAM
- Sadock BJ, Sadock VA, Ruiz P, Kaplan & Sadock's Synopsis of Psychiatry, 11th ed. 2014, Substance-Related Disorders, Lippincott Williams & Wilkins
- Haning WF & Guerrero APS, Ch. 19 Substance Use Disorders, in: Guerrero A & Piasecki M (Eds.), Problem-Based Behavioral Science and Psychiatry, 2008 Springer (2015 in press 2nd Ed.)
- Anon., Alcoholics Anonymous 4th Ed., 2001, AA World Services, Inc., 1st-4th Eds.
- Hales RE et al. (Eds.), The American Psychiatric Press Textbook of Psychiatry, 6th Ed., 2014, Ch.23, Substance-Related and Addictive Disorders

Directories

- **ADAD State of HawaiiWebsite - locator http://hawaii.gov/health/substance-abuse/prevention-treatment/index.html**
- **SAMHSA Website – locator http://findtreatment.samhsa.gov/**
- **Richard Szuster, MD – HRP Resources for Residents, 586-2890**
- **Wm. Haning, MD (JABSOM, Psychiatry): faculty, optional initial contact and referral - 586-7436/220-2685 cell, haning@hawaii.edu**
- **Hawaii Program for Healthcare Professionals:** Kris Bjornson, MD, Medical Director http://www.hawaiiphp.org/ , 808-593-7444

12-Step Meetings

- Alcoholics Anonymous Meetings Oahu
- http://oahucentraloffice.com/meeting-schedule-by-day/
  - (Neighbor Islands: http://oahucentraloffice.com/meeting-schedule-by-day/big-island-maui-kuai-schedules/)
- Narcotics Anonymous Oahu
- https://na-hawaii.org/meeting-schedules/
- Al-Anon Family Groups Hawaii
- http://al-anonhawaii.org/meeting-schedules/

Instruments for SUDs (this page: DAST)

In the following statements "drug abuse" refers to

- The use of prescribed or over-the-counter drugs in excess of the directions, and
- Any nonmedical use of drugs.
- The various classes of drugs may include cannabis (e.g., marijuana, hashish), solvents (e.g., paint thinner), tranquilizers (e.g., Valium), barbiturates, cocaine, stimulants (e.g., speed), hallucinogens (e.g., lysergic acid diethylamide [LSD]), or narcotics (e.g., heroin). Remember that the questions do not include alcoholic beverages.

Please answer every question. If you have difficulty with a question, then choose the response that is mostly right.

These Questions Refer to the Past 12 Months			
1.	Have you used drugs other than those required for medical reasons?	Yes	No
2.	Do you abuse more than one drug at a time?	Yes	No
3.	Are you always able to stop using drugs when you want to?	Yes	No
4.	Have you ever had blackouts or flashbacks as a result of drug use?	Yes	No
5.	Do you ever feel bad or guilty about your drug use?	Yes	No
6.	Does your spouse (or parents) ever complain about your involvement with drugs?	Yes	No
7.	Have you neglected your family because of your use of drugs?	Yes	No
8.	Have you engaged in illegal activities in order to obtain drugs?	Yes	No
9.	Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?	Yes	No
10.	Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding)?	Yes	No

Interpretation (Each "Yes" response = 1)

Score	Degree of Problems Related to Drug Abuse	Suggested Action
0	No Problems Reported	None At This Time
1–2	Low Level	Monitor, Reassess At A Later Date
3–5	Moderate Level	Further Investigation
6–8	Substantial Level	Intensive Assessment

Source: Adapted from Addictive Behaviors, 7(4), Skinner, H.A. The drug abuse screening test, 363–371, copyright 1982, with permission from Elsevier. Available online at http://www.drugabuse.gov/Diagnosis-Treatment/DAST10.html.

Skinner Trauma History

Since your 18th birthday, have you

- Had any fractures or dislocations to your bones or joints?
- Been injured in a road traffic accident?
- Injured your head?
- Been injured in an assault or fight (excluding injuries during sports)?
- Been injured after drinking?

A score of two or more positive responses to the five questions has been shown to indicate a high probability of excessive drinking or alcohol abuse.

Source: Skinner et al. 1984, reprinted with permission from American College of Physicians–American Society of Internal Medicine (ACP–ASIM).

CAGE Questionnaire

Have you ever felt you ought to **C**ut down on your drinking?
Have people **A**nnoyed you by criticizing your drinking?
Have you ever felt bad or **G**uilty about your drinking?
Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (**E**ye-opener)?

One or more "yes" responses constitute a positive screening test. Note, however, that due to language barriers, individual interpretation of the questions, or other confounding factors, individuals answering "no" to all CAGE questions may still be at risk due to elevated drinking levels.

Source: Maisto et al. 2003.

CAGE-AID: The CAGE Questions Adapted To Include Drugs

Have you felt you ought to **C**ut down on your drinking or drug use?
Have people **A**nnoyed you by criticizing your drinking or drug use?
Have you felt bad or **G**uilty about your drinking or drug use?
Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover (**E**ye-opener)?

One or more "yes" responses constitute a positive screening test. Note, however, that due to language barriers, individual interpretation of the questions, or other confounding factors, individuals answering "no" to all CAGE-AID questions may still be at risk due to elevated drinking or drug use levels.

Source: Brown and Rounds 1995.

The TWEAK Questionnaire

Tolerance: (a) How many drinks can you hold, or (b) How many drinks does it take before you begin to feel the first effects of the alcohol?

Worried: Have close friends or relatives worried or complained about your drinking in the past year?

Eye openers: Do you sometimes take a drink in the morning when you first get up?

Amnesia: Has a friend or family member ever told you about things you said or did while you were drinking that you could not remember?

Kut down: Do you sometimes feel the need to cut down on your drinking?

The TWEAK questionnaire was originally developed to screen for risk drinking during pregnancy (Russell et al. 1991). It can also be used to screen for harmful drinking in the general population (Chan et al. 1993).

Scoring: A 7-point scale is used to score the test. The Tolerance question scores 2 points if (a) the patient reports he or she can hold more than five drinks without falling asleep or passing out, or (b) if it is reported that three or more drinks are needed to feel high. A positive response to the Worry question scores 2 points. A positive response to the last three questions scores 1 point each.

A total score of 3 or 4 usually indicates harmful drinking. In an obstetric patient, a total score of 2 or more indicates the likelihood of harmful drinking.

Source: The National Institute on Alcohol Abuse and Addiction Web site at http://www.niaaa.nih.gov/publications/tweak.htm

The Alcohol Use Disorders Identification Test (AUDIT): Interview Version

1. How often do you have a drink* containing alcohol?
   [ ] Never (0) [Skip to Questions 9–10]
   [ ] Monthly or less (1)
   [ ] 2 to 4 times a month (2)
   [ ] 2 to 3 times a week (3)
   [ ] 4 or more times a week (4)

2. How many drinks containing alcohol do you have on a typical day when you are drinking?
   [ ] 1 or 2 (0)
   [ ] 3 or 4 (1)
   [ ] 5 or 6 (2)
   [ ] 7, 8, or 9 (3)
   [ ] 10 or more (4)

3. How often do you have six or more drinks on one occasion?
   [ ] Never (0)
   [ ] Less than monthly (1)
   [ ] Monthly (2)
   [ ] Weekly (3)
   [ ] Daily or almost daily (4)

[Skip to Questions 9 and 10 if Total Score for Questions 2 and 3 = 0]

4. How often during the last year have you found that you were unable to stop drinking once you had started?
   [ ] Never (0)
   [ ] Less than monthly (1)
   [ ] Monthly (2)
   [ ] Weekly (3)
   [ ] Daily or almost daily (4)

5. How often during the last year have you failed to do what was normally expected of you because of drinking?
   [ ] Never (0)
   [ ] Less than monthly (1)
   [ ] Monthly (2)
   [ ] Weekly (3)
   [ ] Daily or almost daily (4)

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
   [ ] Never (0)
   [ ] Less than monthly (1)
   [ ] Monthly (2)
   [ ] Weekly (3)
   [ ] Daily or almost daily (4)

7. How often during the last year have you had a feeling of guilt or remorse after drinking?
   [ ] Never (0)
   [ ] Less than monthly (1)
   [ ] Monthly (2)
   [ ] Weekly (3)
   [ ] Daily or almost daily (4)

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
   [ ] Never (0)
   [ ] Less than monthly (1)
   [ ] Monthly (2)
   [ ] Weekly (3)
   [ ] Daily or almost daily (4)

9. Have you or someone else been injured as the result of your drinking?
   [ ] No (0)
   [ ] Yes, but not in the last year (1)
   [ ] Yes, during the last year (2)

10. Has a relative, friend, or a doctor or other health worker been concerned about your drinking or suggested you cut down?
   [ ] No (0)
   [ ] Yes, but not in the last year (1)
   [ ] Yes, in the last year (2)

Record the total of the specific items. [ ]

*In determining the response categories it has been assumed that one drink contains 10 g alcohol. In countries where the alcohol content of a standard drink differs by more than 25 percent from 10 g, the response category should be modified accordingly.

Source: Babor et al. 2001. Available at http://whqlibdoc.who.int/hq/2001/WHO_MSD_MSB_01.6a.pdf

A self-report version of the AUDIT is also available in Babor et al. 2001.

Scoring and Interpretation of the AUDIT

The minimum score (for nondrinkers) is 0 and the maximum possible score is 40. A score of 8 is indicative of hazardous and harmful alcohol use, and possibly of alcohol dependence. Scores of 8–15 indicate a medium level and scores of 16 and above a high level of alcohol problems. Babor et al. (2001) recommend a cutoff score of 7 for women and individuals over 65 years of age; Bradley et al. (1998) recommended an even lower cutoff score of 4 points for women. For patients who are resistant, uncooperative, or noncommunicative, a clinical screening procedure (described by Babor et al. 2001) may be necessary.

Michigan Alcoholism Screening Test (MAST)

0.	Do you enjoy a drink now and then?	**YES**	**NO**
(2) 1.	*Do you feel you are a normal drinker? (By normal we mean you drink less than or as much as most other people)	**YES**	**NO**
(2) 2.	Have you ever awakened the morning after some drinking the night before and found that you could not remember a part of the evening?	**YES**	**NO**
(1) 3.	Does your wife, husband, a parent, or other near relative ever worry or complain about your drinking?	**YES**	**NO**
(2) 4.	*Can you stop drinking without a struggle after one or two drinks?	**YES**	**NO**
(1) 5.	Do you ever feel guilty about your drinking?	**YES**	**NO**
(2) 6.	*Do friends or relatives think you are a normal drinker?	**YES**	**NO**
(2) 7.	*Are you able to stop drinking when you want to?	**YES**	**NO**
(5) 8.	Have you ever attended a meeting of Alcoholics Anonymous (AA)?	**YES**	**NO**
(1) 9.	Have you gotten into physical fights when drinking?	**YES**	**NO**
(2) 10.	Has your drinking ever created problems between you and your wife, husband, a parent, or other relative?	**YES**	**NO**
(2) 11.	Has your wife, husband (or other family member) ever gone to anyone for help about your drinking?	**YES**	**NO**
(2) 12.	Have you ever lost friends because of your drinking?	**YES**	**NO**
(2) 13.	Have you ever gotten into trouble at work or school because of drinking?	**YES**	**NO**
(2) 14.	Have you ever lost a job because of drinking?	**YES**	**NO**
(2) 15.	Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking?	**YES**	**NO**
(1) 16.	Do you drink before noon fairly often?	**YES**	**NO**
(2) 17.	Have you ever been told you have liver trouble? Cirrhosis?	**YES**	**NO**
(2) 18.	**After heavy drinking have you ever had delirium tremens (DTs) or severe shaking or heard voices or seen things that really weren't there?	**YES**	**NO**
(5) 19.	Have you ever gone to anyone for help about your drinking?	**YES**	**NO**
(5) 20.	Have you ever been in a hospital because of drinking?	**YES**	**NO**
(2) 21.	Have you ever been a patient in a psychiatric hospital or on a psychiatric ward of a general hospital where drinking was part of the problem that resulted in hospitalization?	**YES**	**NO**
(2) 22.	Have you ever been seen at a psychiatric or mental health clinic or gone to any doctor, social worker, or clergyman for help with any emotional problem where drinking was part of the problem?	**YES**	**NO**
(2) 23.	***Have you ever been arrested for drunk driving, driving while intoxicated, or driving under the influence of alcoholic beverages? If YES, how many times? _____	**YES**	**NO**
(2) 24.	Have you ever been arrested, or taken into custody, even for a few hours, because of other drunk behavior? If YES, how many times?_____	**YES**	**NO**

* Alcoholic response is negative
** 5 points for each DT
*** 2 points for each arrest

MAST Scoring System

In general, five points or more would place the subject in alcoholic category. Four points would be suggestive of alcoholism, and three points or fewer would indicate the subject is not alcoholic (Selzer 1971).

Source: American Journal of Psychiatry, 127, 1653–1658 (1971). Copyright (1971). The American Psychiatric Association, http://ajp.psychiatryonline.org. Reprinted by permission. See http://www.niaaa.nih.gov/publications/mast.htm.

Self-Administered Short Michigan Alcoholism Screening Test (SMAST)

Patient Name: _____

Date of Birth: _____

Date of Administration: _____

1. Do you feel you are a normal drinker? (By normal we mean you drink less than or as much as most other people.)	**YES**	**NO**
2. Does your wife, husband, a parent, or other near relative ever worry or complain about your drinking?	**YES**	**NO**
3. Do you ever feel guilty about your drinking?	**YES**	**NO**
4. Do friends or relatives think you are a normal drinker?	**YES**	**NO**
5. Are you able to stop drinking when you want to?	**YES**	**NO**
6. Have you ever attended a meeting of Alcoholics Anonymous?	**YES**	**NO**
7. Has drinking ever created problems between you and your wife, husband, a parent, or other near relative?	**YES**	**NO**
8. Have you ever gotten into trouble at work or school because of drinking?	**YES**	**NO**
9. Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking?	**YES**	**NO**
10. Have you ever gone to anyone for help about your drinking?	**YES**	**NO**
11. Have you ever been in a hospital because of drinking?	**YES**	**NO**
12. Have you ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcoholic beverages?	**YES**	**NO**
13. Have you ever been arrested, even for a few hours, because of other drunken behavior?	**YES**	**NO**

Source: Adapted from Selzer et al. 1975. Reprinted with permission from the *Journal of Studies on Alcohol*.

SMAST Scoring System

Each of the 13 items on the Short MAST is scored 1 (one) or 0 (zero), with questions 1, 4, and 5 scored 1 for each "no" answer, and the other items scored 1 for each "yes" answer. A score of 2 indicates possible alcoholism; a score of 3 or greater indicates probable alcoholism.

10 Drugs to not take while driving: Symptom Inventory

- http://www.snotr.com/video/2959/10_drugs_not_to_take_while_driving

Case 1

- Standard-issue 35 y.o. cosmopolitan male who presents to the community hospital ER with mixed features of psychosis and delirium
- The nurse registrar describes him to the ER physician as an ice warrior
- He has 7 prior admissions and three arrests
- His parents have initiated a TRO
- His temperature p.o. is 102° F.

Case 2

- A 28 y.o. Filipino female is at 22 weeks gestation, and her UDS is positive for MA, confirmed on GC-MS
- She is anxious; she has asked for something to curb craving
- Her obstetrician is anxious, as well.

Case 3

- A 30 year-old male medical student of Japanese ancestry reports to his academic disciplinary committee that his poor performance is the outcome of dependent usage of methamphetamine.
- Historically, he was an akathisic as a child, and impulsive; he found that his late undergraduate and early graduate studies initially improved under the effects of MA.
- He relapses twice in the next 18 months, after initial treatment. He is performing much more adequately in his studies and has good clinical skills.