


# Appropriate Prescribing in Tennessee

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1

## Disclosure

Dr. Baron is Board Certified: Anesthesiology, Psychiatry and Addiction Medicine  
4/2010 – 1/2017 Tennessee Board of Medical Examiners.  
6/2014 – 1/2017 Chair - Controlled Substance Monitoring Database Committee

- Will not discuss off label or investigational medication.
- Has not received commercial support for this lecture.

**Financial and Managerial Relationships:**

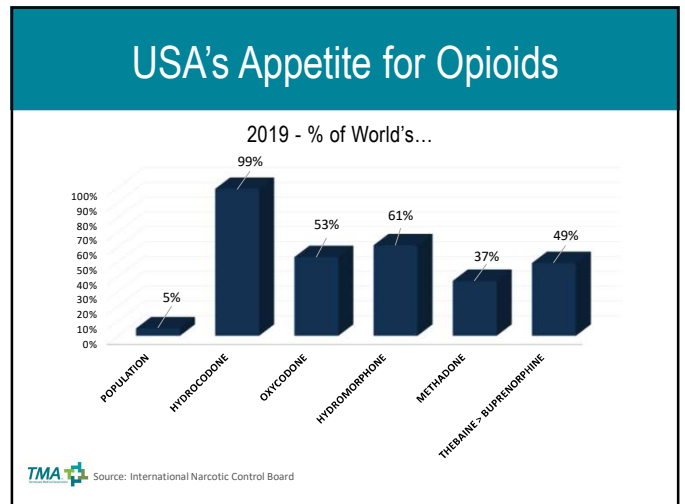
2017- Present	Medical Director: Tennessee Medical Foundation - Physician's Health Program
2020 - Present	State Volunteer Medical Insurance Company
2018 - Present	Volunteer Medical Director: Nashville-Davidson County Drug Court and Women's Residential Recovery Court.
2006 – Present	Course instructor: Prescribing Controlled Drugs: Center for Professional Health- Dept of Internal Medicine, Vanderbilt Medical Center
2004 – Present	Clinical Assistant Professor - Dept of Psychiatry Vanderbilt, School of Medicine.

2


## Objectives

- The attendee will be exposed to the contributing factors of the Opioid Epidemic and OD rates.
- The learner will appreciate the human Craving Brain and Substance Use Disorders.
- We will review the CSMD, Chronic Pain Guidelines, NAS, Women's health and regulatory updates.
- The learner will be exposed to Non-Opioid Pain techniques. Mis-prescribing and Drug seeking behavior.
- We will Review Case Vignettes.

3




4



# Opioid Consumption

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How did we get here?




5

## American Pain Society

1990: Dr. Mitchell Max, President of APS  
*Annals of Internal Medicine* – Editorial: “Unlike Vital Signs,” pain was often invisible...Pain relief has been nobody’s job.”

Recommended:

- Make pain “visible.”
- Give practitioners “bedside” tools to guide physicians and nurses to initiate and modify analgesic treatments.
- Assure patients a place in the “communications loop.”
- Increase clinician accountability by developing “quality assurance guidelines,” improving care systems, and assessing patient satisfaction.
- Work with narcotics control authorities to encourage opiate use.




6

## APS - Into Action

1995: Dr. James Campbell - Presidential Address to the APS presented pain as a vital sign.

1999: California’s legislature passed Assembly Bill 791, which added to the Health and Safety Code (HSC) that “Every health facility licensed pursuant to this chapter shall, as a condition of licensure, include pain as an item to be assessed at the same time as V/S are taken and noted in the chart with V/S.

2000: the 106th U.S. Congress passed H.R. 3244; title VI, Sec. 1603 established the “Decade of Pain Control and Research.




7

## The Joint Commission’s First Pain Standards

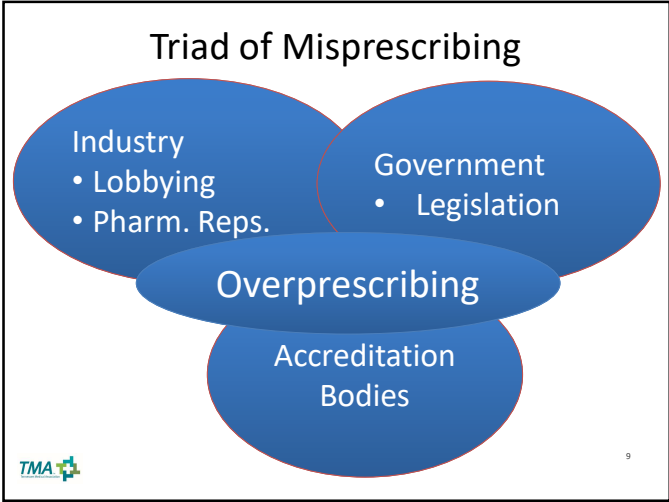
1997: Robert Wood Johnson Foundation funded The Joint Commission to develop pain standards

2000: Joint Commission announced standards for health care organizations to improve pain management.

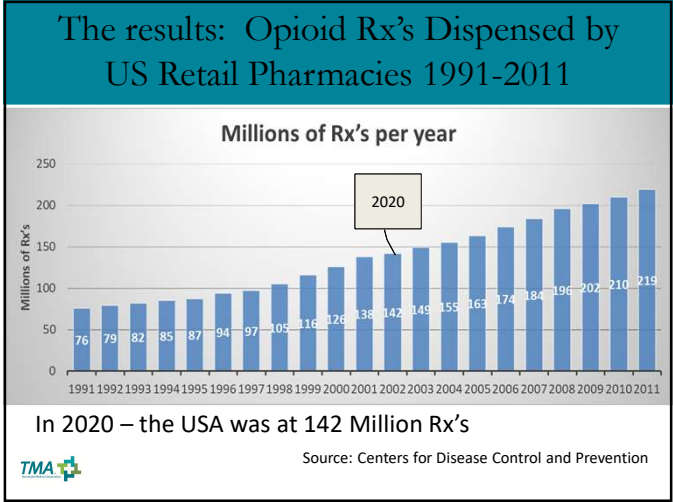
- Emphasized the need for the standards due to the
  - Confusion over who was responsible for pain control
  - A general lack of knowledge about pain management
  - Misconceptions about drug tolerance and addiction.
- Systematic assessments and use quantitative measures of pain.
  - 10-point scale



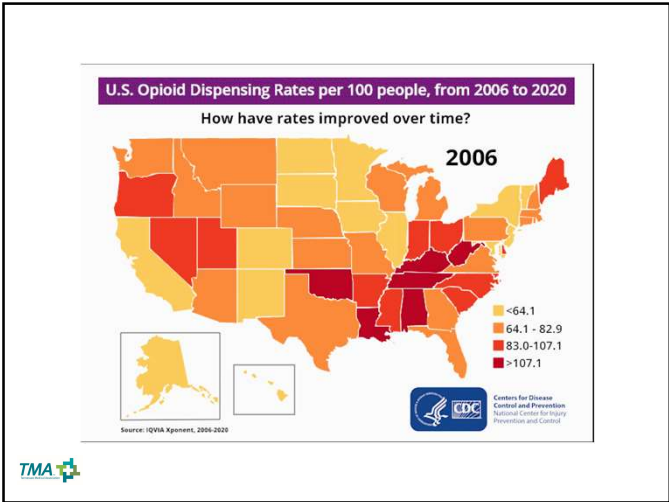
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11

## Industry Told Us

**Opioids are safe and effective for chronic, non-cancer pain.**

**The risk of addiction is rare in pain patients.**

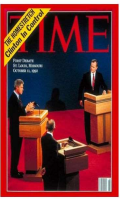
**Opioid therapy can be easily discontinued.**

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12

## Show Me the Evidence

October 19, 1992



**TIME**  
Less Pain, More Gain

"Many physicians now concede ... an exaggerated fear that patients would become addicted. This fear, ... is basically unwarranted. A landmark study, published in 1980, ..."

CORRESPONDENCE

ASSIGNMENT BASE ON PATIENTS TREATED WITH NARCOTICS

11,882

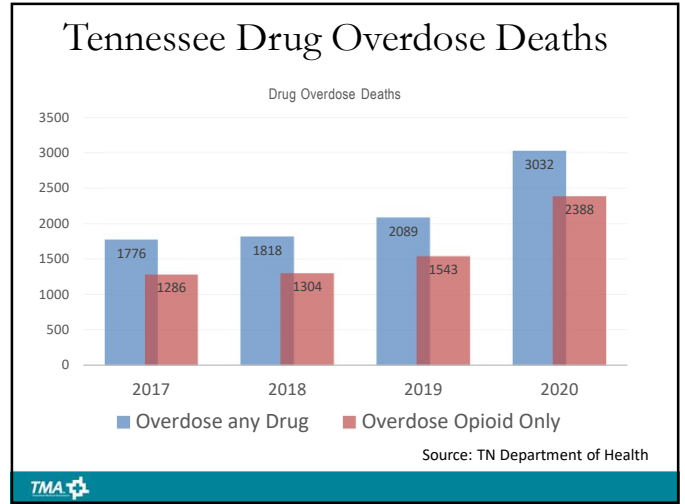
Porter J & Jick, H (1980) Correspondence. *New England Journal of Medicine*, 302.2, 123.

SCIENTIFIC AMERICAN  
February 1990 Volume 262 Number 2

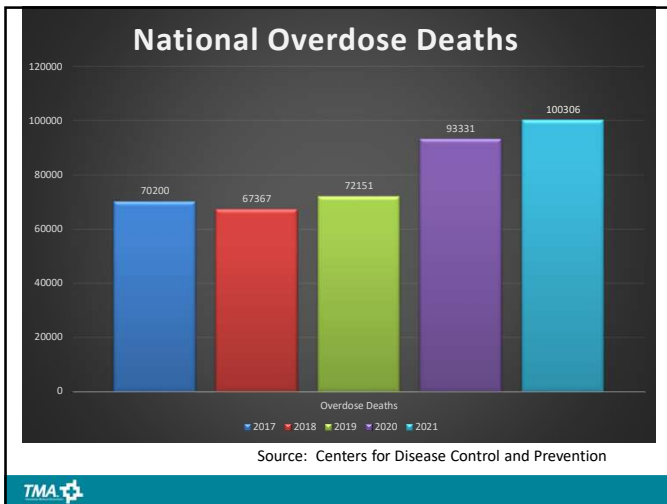
### The Tragedy of Needless Pain

...In an **extensive study** Jane B. Porter and Hershel Jick of the Boston University Medical Center followed up on 11,882 patients who were given narcotics to relieve pain stemming from various medical problems; none of the subjects had a history of drug dependence. The team found that only four of the patients subsequently abused drugs, and in only one case was the abuse considered major...

13



14

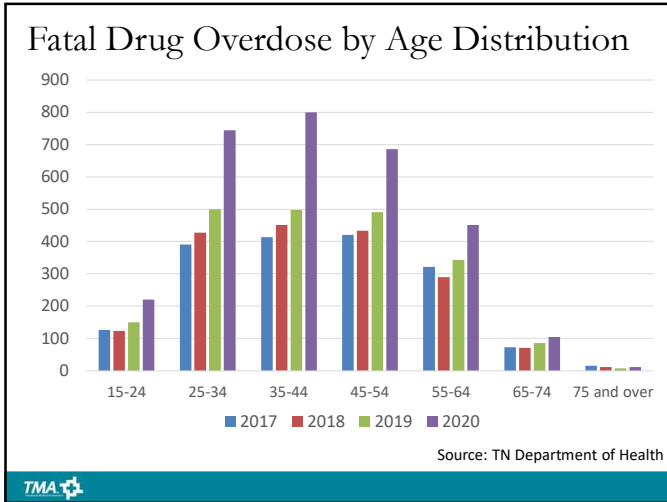


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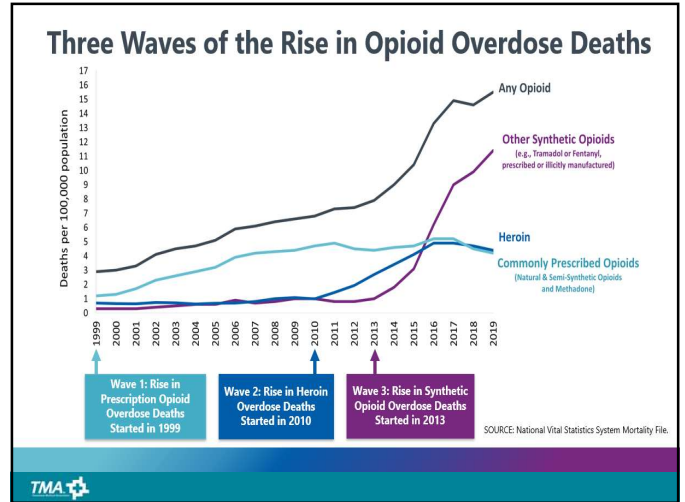
## Compared to Opioids - Smoking

- Smoking is the leading cause of preventable death in the world.
- 480,000 deaths/year caused by cigarette smoking in the United States.
- 11,400 deaths/year caused by cigarette smoking in Tennessee.
- 41,000 of the 480K deaths resulting from secondhand smoke exposure.
- 7,000,000 deaths/year caused by cigarette smoking worldwide.

16



17



18

## Dangers of Fentanyl

- Direct substitute for heroin or opioid addiction
- Dose required for euphoric effect also induces respiratory depression
- Requires an “accurate cut” which is not obtained in a clandestine lab.
- Utilized as cutting agent for Heroin, Methamphetamine, Cocaine and counterfeit
- Physical characteristics present significant hazards

Source: Tennessee Bureau of Investigation

19

**The New York Times** Fentanyl Tainted Pills Bought on Social Media Cause Youth Drug Deaths to Soar

Teenagers and young adults are turning to Snapchat, TikTok and other social media apps to find Percocet, Xanax and other pills. The vast majority are laced with deadly doses of fentanyl, police say.

**By Jan Hoffman**  
May 19, 2022

Shortly after Kade Webb, 20, collapsed and died in a bathroom at a Safeway Market in Roseville, Calif., in December, the police opened his phone and went straight to his social media apps. There, they found exactly what they feared...bought Percocet, a through a dealer on Snapchat. It turned out to be spiked with a lethal amount of fentanyl.

<https://www.nytimes.com/2022/05/19/health/pills-fentanyl-social-media.html>

20

### Counterfeit vs Authentic Pills



Left: Authentic oxycodone M30 tablets (top) vs. counterfeit oxycodone M30 tablets containing fentanyl (bottom). Center: Authentic Adderall tablets (top) vs. counterfeit Adderall tablets containing methamphetamine (bottom). Right: Authentic Xanax tablets (white) vs. counterfeit Xanax tablets containing fentanyl (yellow).

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21

### Alprazolam or Fentanyl?



Counterfeit Fentanyl Laced

Alprazolam

Source: Tennessee Bureau of Investigation

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22

### Can You Tell the Difference?



Counterfeit Fentanyl Laced

Oxycodone (30mg)

Source: Tennessee Bureau of Investigation

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23

### Mobile Pill Manufacturing Plant



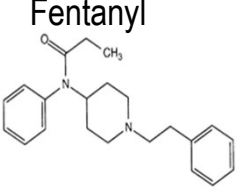

Source: Tennessee Bureau of Investigation

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24

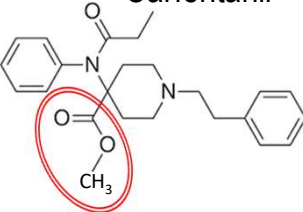
For Comparisons

**Fentanyl**


1 Sugar packet  
weights 3.54 gm

**Carfentanil**



3.5gm of Carfentanil  
= 35 Kg of Morphine

10mg of Morphine = 100ucg of fentanyl = 1ucg of carfentanil



25


**Lethal Doses of Fentanyl & Carfentanil**



Fatal dose of fentanyl  
(2mg or 2000 mcg)




Fatal dose of carfentanil  
(0.02 mg or 20 mcg)



26

## Clinical Vignette


- For every vignette think if this is good medicine or not.
- Is this misprescribing, aberrant behavior, diversion or addiction.
- What do I need to change in my practice to prevent this.



27


## Clinical Vignette

- Misprescribing:** Prescribing Controlled Prescription Drugs in quantities and/or frequency inappropriate for the patient's complaint or illness.
- Aberrant Behavior:** Behaviors that indicate misuse of a prescribed medication or addiction
- Addiction:** Continued use of a substance or process despite consequences.



28


## Vignette #1

Mr. Mel A. Noma, a 68-year-old fair skinned man sees his dermatologist for his annual visit. He is otherwise healthy, treated only for migraine headaches with a triptan every so often. For the last 25 years he has undergone skin biopsies every 2-3 years and has received a Rx after each procedure for Oxycodone/APAP 5/500mg, #15.  As a dutiful patient he fills the Rx. He has never needed or taken a pain pill and has a collection in the medicine cabinet.



29

## OD Vignette

What are the red flags   
No questions asked about post-op pain history.

### **Standing Opioid Rx orders are risky.**

His granddaughter took the 140 opioid pills that were in the medicine cabinet. She had a fatal overdose while with 2 of her friends at a "Fish Bowl" party.



30

## OD Vignette - Fact

- Most diverted opioids come from a legitimate prescription, written for a legitimate reason from a licensed provider.
- The Rx is filled, a small amount may be used and the rest is stored in the medicine cabinet.



31

## Mis-Prescribing

Prescribing in quantities or frequency inappropriate for the complaint or illness.

### Examples:

- Large quantities
- Frequent intervals in a crescendo pattern
- Progression to multiple drugs
- For trivial complaints
- Family members or first line relatives
- Known alcoholic or drug addict



32



## Categories of Mis-Prescribing

- Dated:** Fails to keep current
- Duped:** Doesn't detect deception
- Dysfunctional:** Can't say no
- Dismayed:** Prescription is to make up for lack of time
- Dishonest:** Prescribing for financial gain
- Disabled:** Impaired judgment
- Disempowered:** Skewed perception of power
- Disorganized:** No systems in place
- Disregard for Scope:** Practicing out of specialty
- Dodging:** Using refills to avoid patient visits.



From the Center for Professional Health - VUMC

33

## Mis-Prescribing

### The worst case:

In 2015, a single patient was able to procure 89 prescriptions in a 90-day period by visiting a large number of Tennessee providers



34

## Original Research

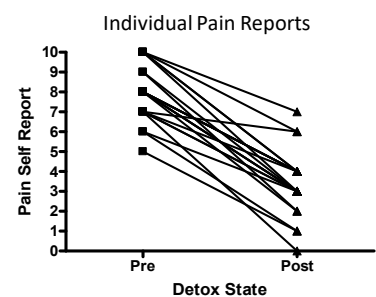
“Significant Pain Reduction in Chronic Pain Patients after Detoxification from High Dose Opiates”

- Journal of Opioid Management  
2:5 September/October 2006  
Michael Baron, MD



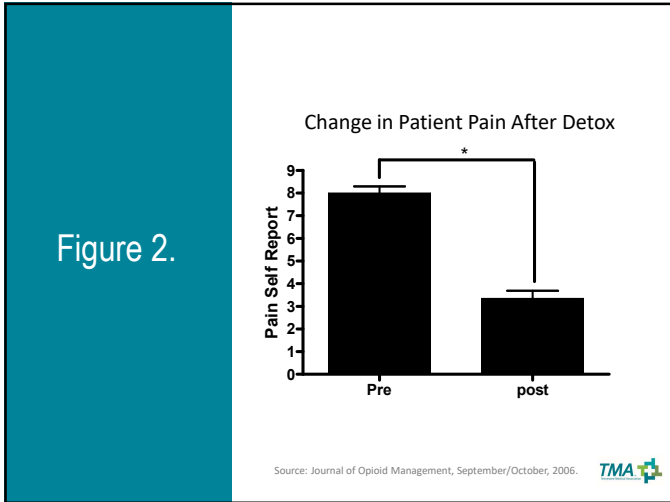
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Figure 1.

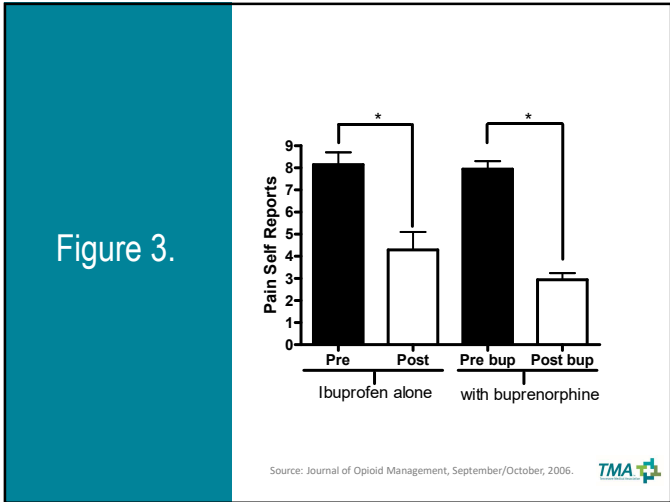


Source: Journal of Opioid Management, September/October, 2006.

36



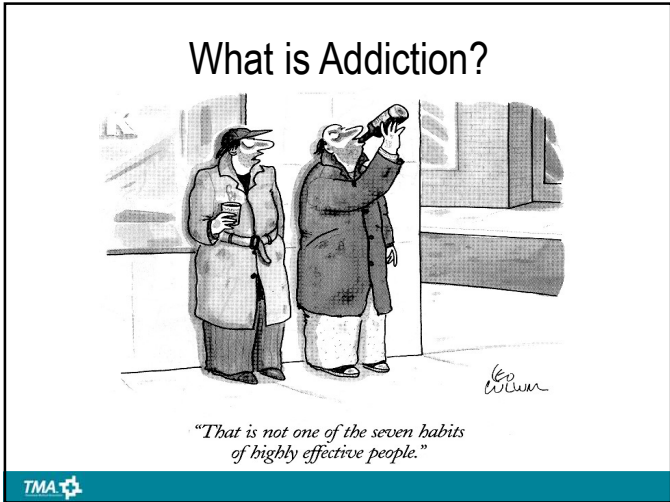
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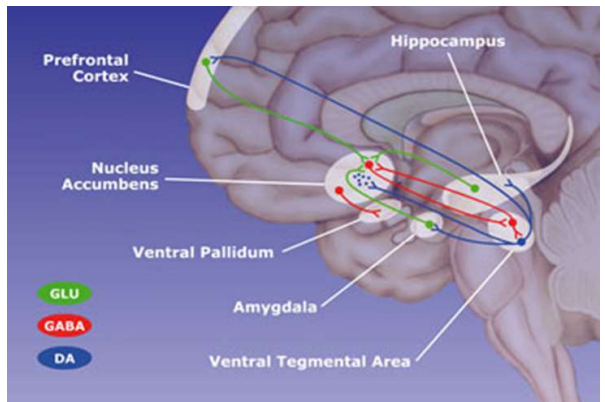

“Addiction doesn’t come heralded by a brass band, it sneaks up on you, and sometimes with extraordinary speed”  
- C. Everett Koop (former US Surgeon General), 2003

Addiction is the single most preventable cause of Disability and Death in the U.S.



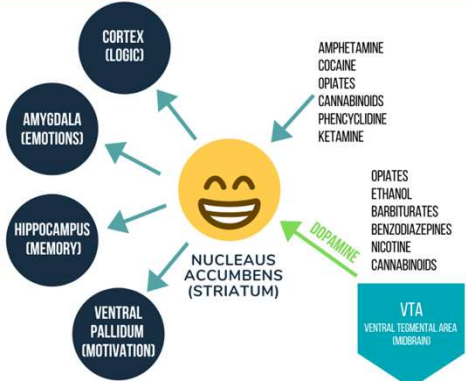
41

### The Reward Circuit

42

### “Pleasure Circuit”




AMPHETAMINE  
COCAINE  
OPIATES  
CANNABINOIDS  
PHENCYCLIDINE  
KETAMINE

OPIATES  
ETHANOL  
BARBITURATES  
BENZODIAZEPINES  
NICOTINE  
CANNABINOIDS

DOPAMINE


VTA  
VENTRAL TEGMENTAL AREA  
(MIDBRAIN)



43

### Addiction = Substance Use Disorder


NIDA	ASAM
<p><b>Addiction</b> is a state in which an organism engages in a compulsive behavior</p> <ul style="list-style-type: none"> <li>Behavior is reinforcing (rewarding or pleasurable)</li> <li>Loss of control in limiting intake</li> </ul>	<p><b>Addiction</b> is a primary, chronic, neurobiologic disease, with genetic, psychosocial and environmental factors influencing its development and manifestations. It is characterized by behaviors that include one or more of the following: impaired <b>Control</b> over drug use, <b>Compulsive</b> use, <b>Continued</b> use despite harm, and <b>Craving</b>.</p> <p>4Cs- Baron add a 5<sup>th</sup> C- Chronic</p>



44

## Substance Use Disorder = Addiction

<p><b>DSM-IV</b></p> <p>Abuse and Dependence</p> <p>Abuse = Willful misuse</p> <p>Dependence = Addiction</p>	<p><b>DSM-5</b></p> <p>Substance Use Disorder</p> <p>Recurrent use of alcohol or other drugs that causes clinically and functionally significant impairment, such as health problems, disability, and failure to meet major responsibilities at work, school, or home.</p> <p>Depending on the level of severity, this disorder is classified as mild, moderate, or severe.</p>
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45

## From: DSM-5 Criteria for Substance Use Disorders (SUD): Recommendations and Rationale

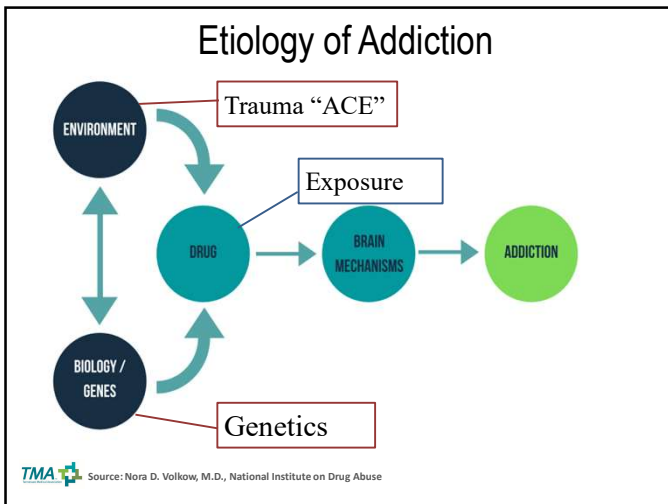
	DSM-IV Abuse <sup>a</sup>		DSM-IV Dependence <sup>b</sup>		DSM-5 Substance Use Disorders <sup>c</sup>	
Hazardous use	X	}	–	}	X	}
Social/interpersonal problems related to use	X		–		X	
Neglected major roles to use	X		–		X	
Legal problems	X		–		–	
Withdrawal <sup>d</sup>	–		X		X	}
Tolerance	–		X		X	
Used larger amounts/longer	–		X		X	
Repeated attempts to quit/control use	–		X		X	
Much time spent using	–		X		X	
Physical/psychological problems related to use	–		X		X	
Activities given up to use	–		X		X	
Craving	–		–		X	

DSM-5 Criteria: 2-3 = mild SUD, 4-5 = moderate SUD, >6 severe SUD



Source: Am J Psychiatry. 2013;170(8):834-851. doi:10.1176/appi.ajp.2013.12060782

46




47

## Etiology - Genetics

Children of Alcoholics:


- Four times more likely to develop alcohol problems than the general population.
- 40-60% risk for addiction is attributable to genetic factors
- Higher risk for many other behavioral and emotional problems.



48

## Etiology – Adolescent Traits

- High novelty and sensation seeking
- Impulsivity
- Low harm avoidance
- High reward dependence
- Temperament – anxiety, aggression, irritability
- Intelligence – cognitive abilities




49

## Etiology – Adverse Childhood Experiences (ACE)

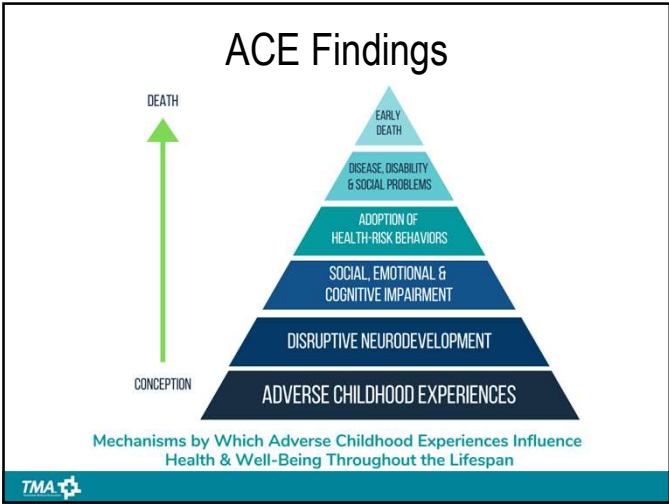
The quantity of traumatic events experienced in childhood correlates with the development of addiction

The greater the number the more likely the development of addiction

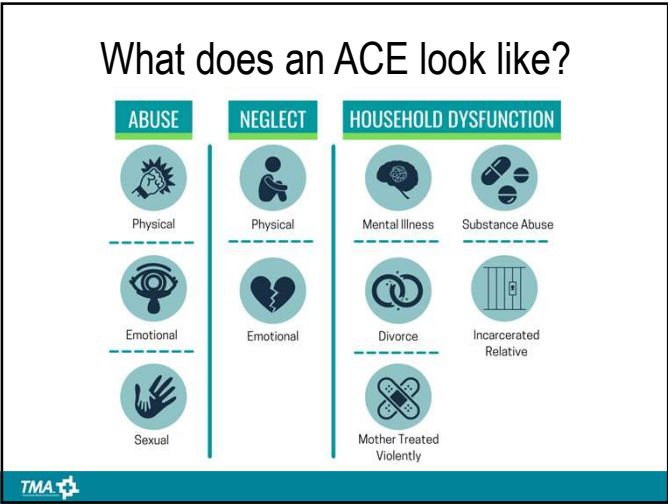
Am J Prev Med. 1998 May;14(4):245-58. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study  
 V J Felitti, R F Anda, D Nordenberg, D F Williamson, A M Spitz, V Edwards, M P Koss, J S Marks



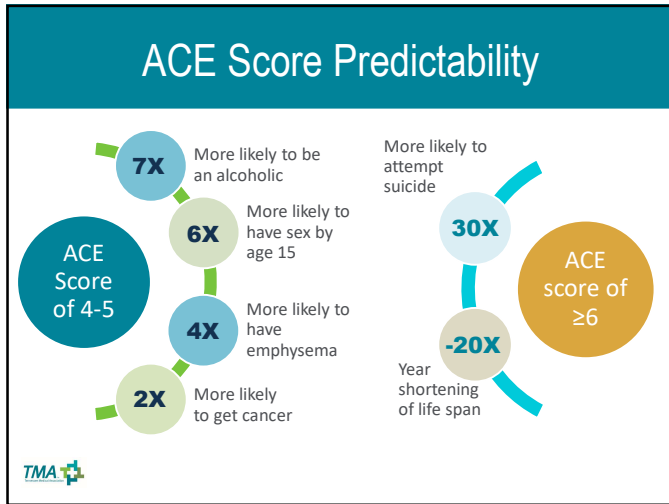
50



51



52



53

- ### High ACE Score Correlates With:
- Substance use disorder/addiction
  - Anxiety disorders
  - Depression
  - Diabetes
  - Heart disease
  - Obesity
  - Suicide attempts
  - Increased risk for intimate partner violence
- TMA

54

- ### High ACE Score Correlates With:
- Each of Top 10 causes of death in US are driven by or have significant links to a substance use disorder. The top 10 causes of death account for about 80% of all deaths in the US:
- |                        |                        |
|------------------------|------------------------|
| 1. Cardiac             | 2. Cancer              |
| 3. Respiratory Disease | 4. Accidents           |
| 5. Stroke              | 6. Alzheimer           |
| 7. Diabetes            | 8. Influenza-pneumonia |
| 9. Renal               | 10. Suicide            |
- TMA

55

- ### Etiology - Exposure
- Postsurgical prescriptions for opioid naive patients and association with overdose and misuse: retrospective cohort study
- 568,612 patients (56% of N) received postoperative opioids.
  - Total duration of opioid use was the strongest predictor of misuse.
  - A single refill increased the potential of misuse by more than 40%.
  - The duration of use appeared to be the most prominent predictor of misuse.
- Source: BMJ 2018;360:j5790
- TMA

56

## Exposure

“**Legitimate** opioid use before high school graduation is independently associated with a **33%** increase in the risk of future misuse after high school”

“Prescription Opioids in Adolescence and Future Opioid Misuse”  
Journal Pediatrics 2015



57

## Vignette #2

Friday at 2:00pm in the doctor’s lounge Dr. Ray, a radiologist asks you (Internist) to write a prescription for pain pills. He has low back pain and is driving to Florida in the morning for a family vacation. He can’t get to his own doctor because of the interventional ad-ons, one of which is your referral. You write a prescription for hydrocodone/APAP 7.5/325mg, sig:1 to 2 TID, #18 thinking one Rx won’t hurt anyone and it is less than the 3 day, 180 MME rule.



58

## Vignette #2

What are the red flags



1. Did not query the CSMD.
2. Did not get a history.
3. Did not do a physical examination.
4. Did not start with a non opioid analgesic, prescribe physical therapy or other adjunctive care.
5. Do not have a patient chart for Dr. Ray.



59

## Vignette #2

In a heated argument over Dr. Ray’s drug use, his wife calls the medical board. Apparently, Dr. Ray has been using hydrocodone for many months in increasing amounts and has become impaired. During the investigation they ask Dr. Sap for Dr. Ray’s chart.

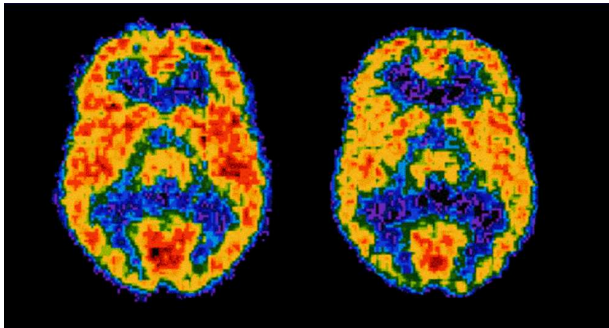
Dr. Sap spends \$23,000 on legal fees only to have his medical license admonished with a reported action to the NPDB.

Dr. Ray is referred to the Physician Health Program.



60

### Which Brain is on Drugs?

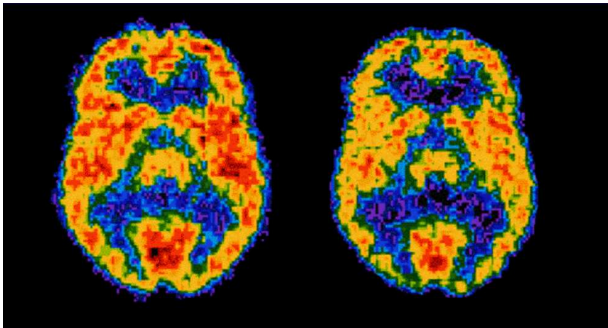


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Source: NIDA

61

### Which Brain is on Drugs?



Normal

Cocaine

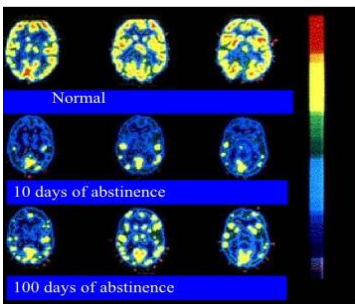
TMA

Source: NIDA

62

### Brain Healing Takes Time

- Normal levels of brain activity in PET scans show up in yellow to red
- Reduced brain activity after regular use can be seen even after 10 days of abstinence
- After 100 days of abstinence, we can see brain activity "starting" to recover

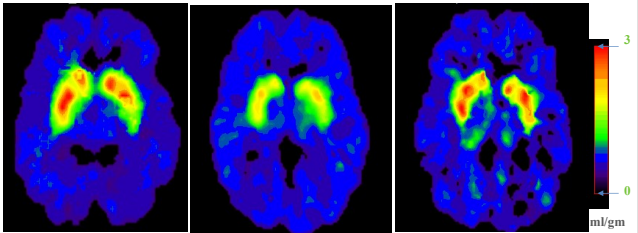


TMA

Source: Volkow, ND et al Synapse 11:184-190, 1992; Volkow ND, et al. Synapse 14:169-177, 1993.

63

### Partial Recovery of Brain Dopamine Transporters in Methamphetamine (METH) Abuser After Protracted Abstinence



Normal Control

METH Abuser (1 month detox)

METH Abuser (24 months detox)

TMA



Source: Volkow, ND et al., Journal of Neuroscience 21, 9414-9418, 2001.

64



## Substances Of Addiction

- Alcohol
- Opiates
- Benzodiazepines and Hypnosedatives
- Stimulants - Cocaine, Amphetamines
- Cannabinoids
- Hallucinogens
- Inhalants
- Tobacco
- Etc.





65

## Process Addictions

- Gambling (pramipexole & ropinirole)
- Sex, Love, Relationship
- Work
- Food
- Internet
- Video Game
- Gaming Disorder (W.H.O. added for ICD 11)


Anything that changes how one feels



66

## Screening Instruments

Screening Tool	Alcohol	Drug	Adult	Adolescent
NIDA Drug Use Screening tool	X	X	X	X with modifiers
CRAFFT	X	X		X
AUDIT	X		X	
Opioid Risk Tool		X	X	X
CAGE-AID	X	X	X	X




67

## CAGE-AID

	YES	NO
1. Have you ever felt that you ought to cut down on your drinking or drug use?	<input type="checkbox"/>	<input type="checkbox"/>
2. Have people annoyed you by criticizing your drinking or drug use?	<input type="checkbox"/>	<input type="checkbox"/>
3. Have you ever felt bad or guilty about your drinking or drug use?	<input type="checkbox"/>	<input type="checkbox"/>
4. 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?	<input type="checkbox"/>	<input type="checkbox"/>

A YES answer indicates a possible Substance Use Disorder and the need for further testing.

One Yes = SUD  
Sensitivity - 0.79  
Specificity - 0.77



68

## Opioid Risk Tool (ORT)

**Scoring patients:**

- low risk (0-3)
- medium (4-7)
- high (≥ 8)

**High risk:**  
91% sensitivity for Aberrant Drug Related Behavior

Mark each box that applies		Female	Male
1. Family history of substance abuse	<ul style="list-style-type: none"> <li>• Alcohol</li> <li>• Illegal drugs</li> <li>• Prescription drugs</li> </ul>	[ ] 1 [ ] 3	[ ] 3 [ ] 4
2. Personal history of substance abuse	<ul style="list-style-type: none"> <li>• Alcohol</li> <li>• Illegal drugs</li> <li>• Prescription drugs</li> </ul>	[ ] 3 [ ] 3	[ ] 4 [ ] 5
3. Age (mark box if 16-45 years)		[ ] 1 [ ] 1	
4. History of preadolescent sexual abuse		[ ] 3 [ ] 0	
5. Psychological disease	<ul style="list-style-type: none"> <li>• Attention-deficit/hyperactivity disorder, obsessive-compulsive disorder, bipolar disorder, schizophrenia</li> <li>• Depression</li> </ul>	[ ] 2 [ ] 2 [ ] 1 [ ] 1	[ ] 2 [ ] 1
<b>Low (0-3)    Moderate (4-7)    High (≥8)</b>	<b>Scoring totals</b>	[ ] [ ]	[ ] [ ]

Source: Webster LR, Webster RM. Pain Med. 2005;6(6):432-442

69

## Opioid Risk Tool (ORT)

- Self-report screening tool
- Administered to patients upon an initial visit prior to beginning opioid therapy
- Can be administered and scored < than 1 minute
- Validated in male and female patients
- ≤ low risk for future opioid abuse
- 4 to 7 moderate risk for opioid abuse
- ≤ 8 a high risk for opioid abuse

70

## SBIRT

SBIRT:  
Screening, Brief Intervention, and Referral to Treatment

Evidence-based practice used to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs.

<https://www.integration.samhsa.gov/clinical-practice/sbirt>

71

## SBIRT

Consists of 3 major components

**Screening:**  
A healthcare professional assesses a patient for risky substance use behaviors using standardized screening tools in any healthcare setting.

**Brief Intervention:**  
A healthcare professional engages a patient showing risky substance use behaviors in a short conversation, providing feedback and advice.

**Referral to Treatment:**  
A healthcare professional provides a referral to brief therapy or additional treatment to patients who screen in need of additional services.

72

# Stimulants

Common Medications

Type of medication	Brand name	Generic Name	Duration
Short-acting amphetamine stimulants	Adderall	Mixed amphetamine salts	4 to 6 hours
	Desoxine	Dextroamphetamine	4 to 6 hours
	Dexdrolstat	Dextroamphetamine	4 to 6 hours
Short-acting methylphenidate stimulants	Ritalin	Methylphenidate	8 to 8 hours
	Motivlin	Methylphenidate (tablet, liquid, and chewable tablets)	8 to 8 hours
	Ritalin	Methylphenidate	8 to 8 hours
Intermediate-acting methylphenidate stimulants	Ritalin CD	Extended-release methylphenidate	8 to 8 hours
	Ritalin LA	Extended-release Methylphenidate	6 to 8 hours
Long-acting amphetamine stimulants	Adderall XR	Extended-release amphetamine	10 to 12 hours
	Desoxine Spansule	Extended-release amphetamine	6 to 8 hours
	Daytrana	Lisdexamfetamine	10 to 12 hours
Long-acting methylphenidate stimulants	Concerta	Extended-release methylphenidate	10 to 12 hours
	Daytrana	Extended-release methylphenidate (skin patch)	11 to 12 hours
	Focalin XR	Extended-release dexmethylphenidate	8 to 12 hours
	Quilfont XR	Extended-release methylphenidate (bead)	10 to 12 hours
Long-acting non-stimulants	Intuniv	Guanfacine	24 hours
	Kappax	Clonidine	12 hours
	Motivlin	Atomoxetine	24 hours

Products are mentioned for informational purposes only and do not imply an endorsement by the American Academy of Pediatrics. Your doctor or pharmacist can provide you with important safety information for the products listed.

Stimulant Overdose Deaths in TN

Type	2016	2017	2018	2019	2020
Any Stimulant	413	587	671	910	1,315
Stimulants other than Cocaine	187	319	462	651	961
Cocaine	250	306	251	334	417
Opioids and Cocaine	153	195	174	230	318
Opioids and Stimulants other than cocaine	111	177	281	409	699
Opioids and any Stimulant	246	342	421	579	964

Source: 2020 TN Drug Overdose Deaths, TN DOH

73

# Psychostimulants in Clinical Practice

## Indications for Use of CII Stimulants:

- ADHD
  - Affects 7-9% of the pediatric population
  - ADHD is associated with a 3x lifetime increased risk of addiction – Most studies suggest risk is mitigated by stimulant treatment.
  - Stimulants are considered “First Line” agents for treatment of ADHD by all the major professional organizations (AACAP, APA, AAP, etc.)



74

# Psychostimulants in Clinical Practice

## Indications for Use of Stimulants:

- Narcolepsy
  - Affects approximately 200,000 Americans. Only 25% of those are properly diagnosed and treated.
- Treatment Resistant Depression
  - Is the leading cause of disability worldwide (World Health Organization, 2020)
  - Psychostimulants may be offered to improve mood, energy, and concentration.
- Dementia, Organic Brain Syndrome, Drug induced brain dysfunction



75

# Prior to Prescribing Psychostimulants

- Detailed developmental history, Physical Exam, Laboratory Studies as needed; pre and follow up UDS's
- Collateral History - parents, teachers, tutors and significant others
- Psychiatric History- depression, anxiety, OCD, tic, learning, substance use
- Medical History – CV, hypertension, cardiac disease
- Family History - sudden cardiac death such as WPW
- Height, weight, pulse, BP and Abnormal involuntary movements (AIM)
- EKG and/or echocardiogram prior to initiating treatment if indicated.
- Use an ADHD specific rating scale(s)
- Check the CSMD database,



76

**There is Help.**

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**A Healthier Physician is a Better Physician**



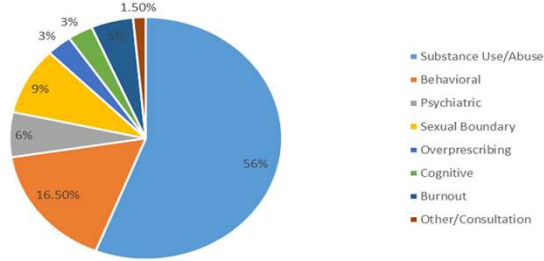
TMA

77

### Tennessee Medical Foundation - Physician's Health Program

Currently @ 225 Health Professionals under a Monitoring Agreement

Clinical Statistics



Category	Percentage
Substance Use/Abuse	56%
Behavioral	16.50%
Sexual Boundary	9%
Psychiatric	6%
Overprescribing	3%
Cognitive	3%
Burnout	1.50%
Other/Consultation	1.50%

Since 2002 the TMF-PHP has helped >2600 Health Care Professionals in TN

TMA

78

### TMF – PHP Confidential Track

The confidential track allows for a therapeutic alternative to discipline, with the support of organized medicine.

The Physician or other HP gets referred by self, spouse/SO, parent, sibling, medical practice, managing partner, lawyer, MEC, CMO, CWO (wellness), patient, or law enforcement.

They are evaluated, treated (if indicated), returned to work, and monitored without punitive action.

TMA

79

### TMF – PHP Mandated Track

Physician/HP is referred, mandated by the respective Health Regulatory (Licensing) Board.

Physician is treated the same way as those in confidential track.

There can be an accompanying punitive action such as a Reprimand or Probation on license, which is reported to NPDB.


Health Regulatory Board -punitive approach increases stigma and resistance to getting help.

TMA

80

## TN-PSQ


- An online mental health resource to address depression, burnout, and other mental health problems among Tennessee’s licensed health professionals served by the Tennessee Medical Foundation’s - Physician’s Health Program (TMF-PHP).
- Open to all Tennessee physicians, residents, interns and medical students.
- Initiated by the TMF in partnership with the Board of Medical Examiners, the Tennessee Medical Association and State Volunteer Mutual Insurance Company.



81

## TN-PSQ

- TN PSQ is intended to help connect physicians with available mental health resources in their area.
- The TN PSQ is a free, anonymous, confidential online mental health screening to provide referrals to appropriate mental health resources and optional interaction with a program therapist.
- This tool is completely driven by the user. This should alleviate some of the fears involved in asking for help with mental or emotional illness.




82


## TN-PSQ Update

**As of October 5, 2022, we have had 533 health professionals access the TN-PSQ:**

- 103 (19%) were Tier 1A (high/severe distress including SI)
- 186 (35%) were Tier 1B (high/severe distress w/NO SI)
- 219 (42%) were Tier 2 (moderate distress)
- 24 (4.5%) were Tier 3 (low to NO distress)
- 85% were not already receiving treatment or therapy for their mental health problem




83



TNPSQ link:  
<https://tn.providerwellness.org>

TMF TNPSQ Page and FAQs:  
<https://e-tmf.org/tnpsq/>

There are links on the TMF-PHP, TMA, BME and SVMIC websites.



84



85

### Physician requirements for Collaborative Agreements with APRN's & PA's

- Collaborative Agreement
- Protocols on Site, signed by both parties
- 20% of charts signed every 30 days
- 100% of charts signed every 10 days when a controlled substance is prescribed
- Site visit every 30 days
- Licensed in same specialty and in Tennessee

TMA

86

### Physician Requirements for Collaborative Agreements with APRNs & PAs

Public Chapter 949

- 10 of the 12 on-site visits may be conducted via HIPAA compliant electronic means.
- All 12 site visits may be conducted via HIPAA-compliant electronic means for Federally Qualified Health Center (FQHC).

Effective April 29, 2022.

TMA

87

### Physician Assistant Requirements

- Collaborative Request on file with PA Committee
  - Changes filed within 15 days
- Practice Protocols required between PA and collaborative physician at practice site
- 2-hour CME to include Chronic Pain Guidelines

TMA

88

## APRN Requirements

- Collaborative Request on file with Board of Nursing
  - Changes filed within 30 days
- Practice Protocols required between APRN and collaborative physician at practice site
- 2-hour CME to include Chronic Pain Guidelines



89

## Vignette #3

Last Friday at lunch you overhear Lucy Bouche, APRN talking to her coworker that she prescribed lorazepam 2mg, #30, 1 PO BID and then 3 days later chlordiazepoxide 25mg, #45, 1 PO TID to Dr. Mason, her collaborative physician. You privately ask her “What’s going on?” She responds that Dr. Mason called and requested the medications as he has been home for the last 2 weeks. He was having shakes, chills and insomnia because he stopped drinking alcohol. He plans to return to work on Monday.



90

## Vignette #3

- What are the red flags?
  1. Ms. Bouche, APRN did not do an exam or have a chart for Dr. Mason
  2. Having your collaborative APRN prescribe to you is a form of self-prescribing
  3. Alcohol withdrawal syndrome can be fatal and should be monitored.
  4. Dr. Mason goes back to work.
    - a) No evaluation, monitoring or accountability



91

## CSMD is TN's PMP

Controlled Substance  
Monitoring Database  
Updates



92

### Shall Check the CSMD

- Before prescribing an **opioid, benzodiazepine** or **Schedule II amphetamine** as a **new episode of treatment** lasting more than 3 days.
  - Prior to each new prescription for the first 90 days of that treatment and every 6 months there after if that treatment is continued.
  - If doctor shopping, diversion or other misuse is suspected
- ❖ **A new episode of treatment** means a controlled substance prescription that has not been prescribed by that practitioner within the previous 6 months. This includes not only changes to specific drugs but also all changes to dosage and frequency of the drugs prescribed.



93

### Not Required to Check the CSMD

- The quantity of the controlled substance which is prescribed does not exceed an amount which is adequate for a single, three-day treatment period and does not allow a refill.
- The controlled substance is prescribed or dispensed for a patient who is currently receiving Hospice Care.
- The controlled substance is administered directly to a patient during the course of inpatient or residential treatment in a licensed hospital or nursing home.



94

### CSMD Should Do's

The CSMD report can be placed in the medical record

*Report may include data from states with criminal penalties for disclosure so be careful!*

Document access to the CSMD in the chart including who and when and any action taken as a result of the findings, or no action taken

Prescribers should regularly obtain their own practitioner report for unauthorized use or for incorrect information



95

### Clinical Risk Indicators on CSMD

- ◆ = 4 Practitioners in last 90 days
- ◆ ≥ 5 Practitioners in last 90 days
- ▲ = 4 Pharmacies in last 90 days
- ▲ ≥ 5 Pharmacies in last 90 days
- ≥ 90 but < 120 Active MME's
- ≥ 120 Active Cumulative MME's
- = High-Risk Female Patient
- = NAS or NOWS Risk
- = Female and child-bearing age 15-45


MME = Morphine Milligram Equivalents



96



### Suspect Drug-Seeking Behavior in the Patient who...



TMA

97

### Possible Drug-Seeking Behavior

- A dramatic, compelling but vague complaint
- Pressures for an increases in dose
- Drug screens are negative for Rx'ed medicine
- Symptoms contradict clinical observation
- Patient asks for a specific drug
- Patient has no interest in the diagnosis
- Rejects all treatment that is not opioids

TMA

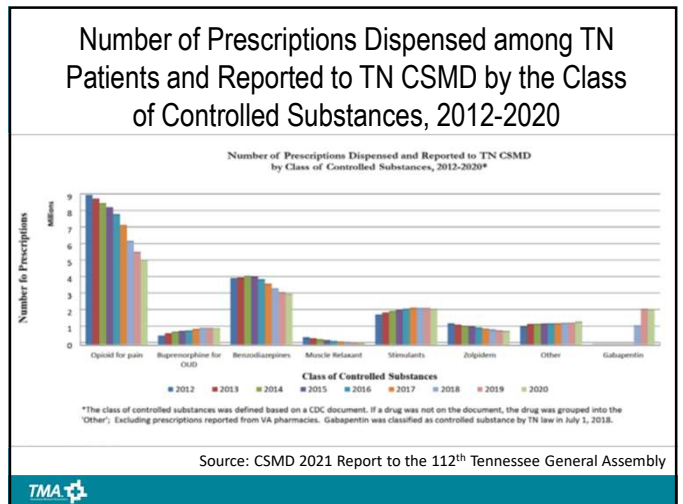
98

### Possible Drug-Seeking Behavior

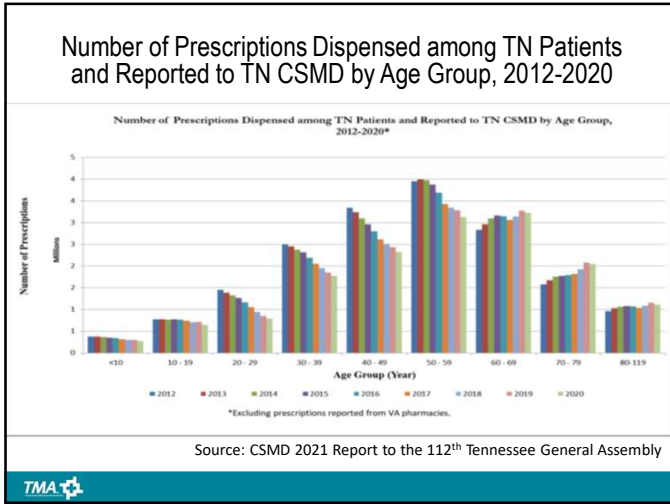
- Reports an NSAID Allergy
- Has abundant pharmacologic knowledge
- Patient makes veiled threats
- Patient is very flattering
- Primary doctor is out of town
- Travels long distances to get to you
- Primary doctor just retired

TMA

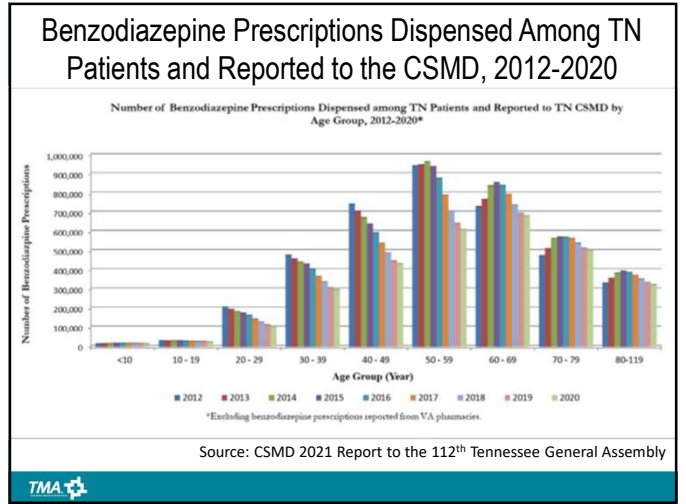
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100



101



102

### MME for Long Acting Opioids Reported to the CSMD

Amount of MME for Long Acting Drugs Dispensed in TN and Reported to the CSMD, 2011-2020

Year	Overall patients in CSMD	TN patients	Change among TN patients (%)
2011	3,254,786,743	3,121,293,556	-
2012	3,285,062,156	3,148,353,468	0.9
2013	3,238,216,544	3,106,161,557	-1.3
2014	2,924,795,127	2,806,107,045	-9.7
2015	2,552,291,111	2,454,148,868	-12.5
2016	2,124,916,097	2,045,899,859	-16.6
2017	1,630,473,227	1,569,066,136	-23.3
2018	1,208,006,345	1,164,883,880	-25.8
2019	909,241,155	877,932,403	-24.6
2020	733,493,577	705,597,298	-19.6

2011-2020 percent change = -77%

Source: CSMD 2021 Report to the 112<sup>th</sup> Tennessee General Assembly

103

### MME for Short Acting Opioids Reported to the CSMD

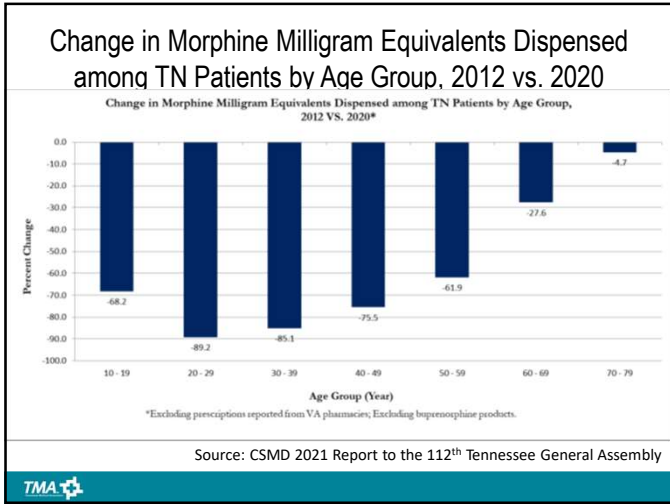
Amount of MME for Short Acting Drugs Dispensed in TN and Reported to the CSMD, 2011-2020

Year	Overall patients in CSMD	TN Patients	Change among TN Patients (%)
2011	5,727,903,926	5,469,306,918	-
2012	5,891,039,406	5,645,050,796	3.2
2013	5,676,117,306	5,459,300,461	-3.3
2014	5,495,823,563	5,283,695,020	-3.2
2015	5,371,326,766	5,168,525,477	-2.2
2016	5,046,357,775	4,863,320,231	-5.9
2017	4,606,843,191	4,448,492,750	-8.5
2018	4,024,015,019	3,888,983,012	-12.6
2019	3,470,125,781	3,361,697,254	13.6
2020	3,207,567,373	3,103,569,942	-7.7

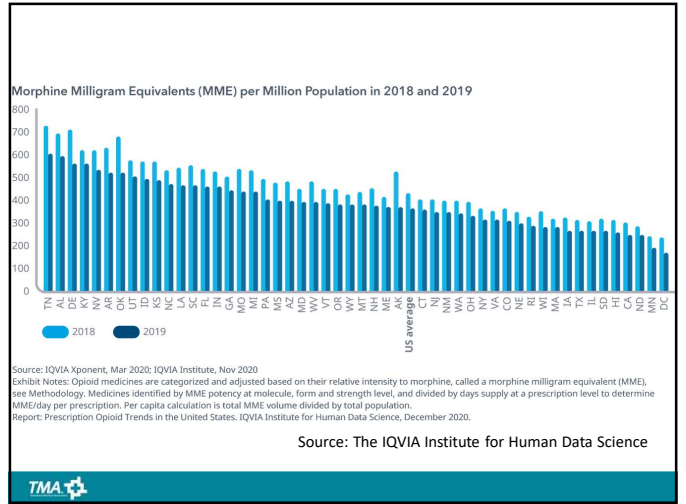
2011-2020 percent change = 43%

Source: CSMD 2021 Report to the 112<sup>th</sup> Tennessee General Assembly

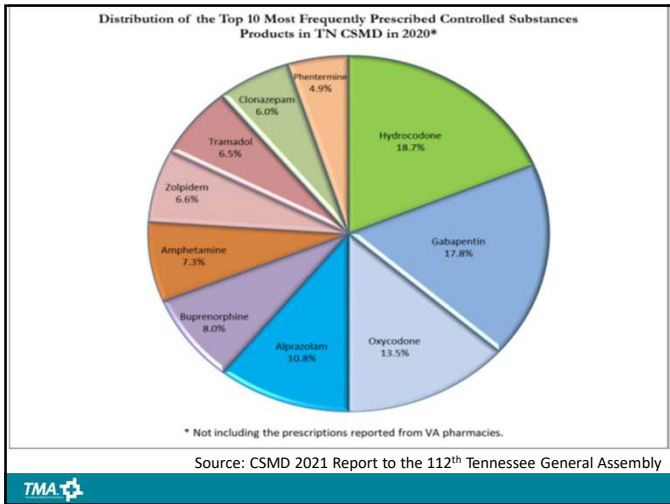
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105



106



107



108

## Buprenorphine Statutes

### Common Abbreviations:

- MAT ... Medication Assisted Treatment
- MOUD. Medication for Opioid Use Disorder
- OBOT.. Office Based Opioid Treatment Program
- OTP... Opioid Treatment Program
- NTP... Narcotic Treatment program



109

## Endogenous Opioid Peptides

Humans have many endogenous opioid peptides that have “morphine” like activity. Opioid receptors found in the brain, pituitary, spinal cord, GI track

### Endogenous Opioid Peptides Opioid Receptors

- $\beta$ -Endorphins. . . . .  $\mu$
- Enkephalins . . . . .  $\mu$  &  $\delta$
- Dynorphins . . . . .  $\kappa$
- Endomorphins . . . . .  $\mu$



110

## $\mu$ Opioid Receptor

Activation of  $\mu$ -opioid receptor causes

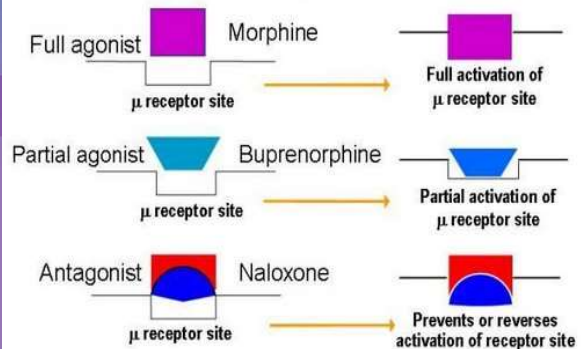
- Analgesia, euphoria, respiratory depression, decreased GI tract motility leading to nausea, vomiting and constipation
- Tolerance
- Dependence
- Addiction



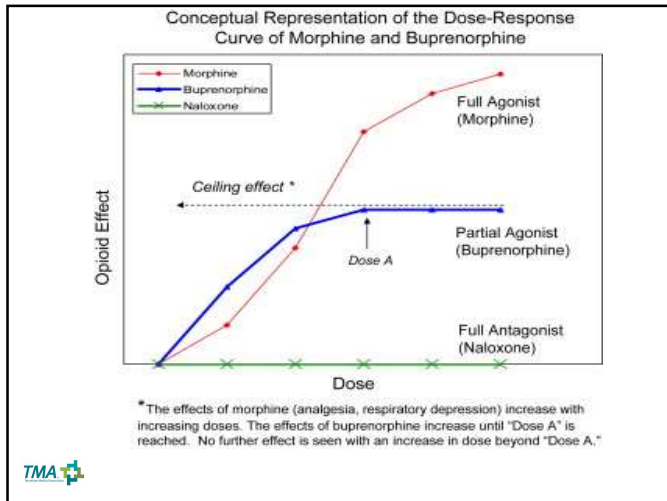
111

## Agonist/Partial Agonist/Antagonist

### Mu ( $\mu$ ) Receptor Activation



112



113

## Medication-Assisted Treatment (MAT)

MAT is the use of medications in combination with counseling and behavioral therapies, to provide a whole-patient approach to the treatment of substance use disorders.

TMA

114

## MAT/MOUD Medications

FDA has approved several different medications to treat Opioid Use Disorder/Addiction.

- **Methadone** (agonist) used in MAT for opioid treatment can only be dispensed through a SAMHSA-certified OTP.
- **Buprenorphine/naloxone** (Partial agonist) can only be prescribed by DEA waived providers.
- **Naltrexone** (antagonist) needs no special waiver or certification.

TMA

115

## MAT - The Upside

The ultimate goal of MAT is full recovery, including the ability to live a self-directed life. This treatment approach has been shown to:

- Improve patient survival
- Increase retention in treatment
- Decrease illicit opiate use and other criminal activity among people with substance use disorders
- Increase patients' ability to gain and maintain employment

TMA

116

### MAT - The Downside

- Harm reduction model.
- Doesn't allow the brain to fully heal - research is ongoing.
- Highly diverted and abused.
- Often self-regulated.
- Difficult to wean someone off in the outpatient environment
- Potential for cognitive impairment- especially when self regulated.



117

### 2020 Public Chapter 761

#### APRN and PA Buprenorphine Inclusions - 7/20/2020

- Licensed, obtains a DATA 2000 Waiver
- Employed by a Federal Qualified Health Center (FQHC) or Community Mental Health Care Clinic (CMHC)
- Credentialed with and accepts all TennCare patients
- Clinical Protocols for MAT
- ≤16 mg per day of buprenorphine
- Collaborative physician is limited to 4 APRNs or PA
- 50 or fewer patients



118

### 2020 Public Chapter 771

#### APRN and PA Buprenorphine Inclusions - 8/1/2020

- Practices under the Direct Supervision of a DATA 2000 waived physician in an OBOT
- Collaborative physician is limited to 2 APRNs or PA
- No cash pay or use of prepaid or gift cards
- Credentialed with and accepts all TennCare patients
- ≤16 mg per day of buprenorphine
- Obtains a DATA 2000 Waiver
- Capped at 100 patients



119

### 2022 Public Chapter 881

A healthcare provider shall not prescribe buprenorphine via **telehealth** unless:

Employed or contracted with

- A licensed nonresidential OBOT facility or program
- A Community Mental Health Center
- A Federally Qualified Health Center
- A licensed hospital
- TennCare's comprehensive enhanced Buprenorphine treatment network

And delivery of telehealth is being provided on behalf of employer.

Effective April 2022



120

### 2022 Public Chapter 1061

When prescribing an opioid, prescriber shall offer a prescription for an opioid antagonist (naloxone)...for the ...reversal of an opioid overdose...when one (1) or more of the following conditions are present

- > three-day supply of an opioid
  - Concurrent prescription for benzodiazepine
  - There is an increased risk for overdose
- Exemptions: Palliative care and Veterinarian

Effective July 2022



121

### SCOTUS: Ruan v United States

The defendants were licensed MD's who had issued prescriptions for controlled substances. They were charged with a criminal violation of CSA- 21 U.S.C. § 841, which prohibits distribution of controlled substances "except as authorized." The Government argued that the specific prescriptions at issue were outside the bounds of the doctors' authority. The question presented, therefore, was whether it is "sufficient for the Government to prove that a prescription was in fact not authorized," or whether it "must . . . prove that the doctor knew or intended that the prescription was unauthorized.

Applying mens rea, the Court held that, "once a defendant meets the burden of producing evidence that his or her conduct was 'authorized,' the Government must prove beyond a reasonable doubt that the defendant "knowingly or intentionally" acted in an unauthorized manner." June 2022



122

### PC 1039 and PC 124 Requirements

Created 4 categories for opioid prescribing:

- I. Up to 3 days or up to 180 MME
- II. Up to 10 days or up to 500 MME
- III. Up to 30 days or up to 1200 MME more than minimally invasive surgery
- IV. Up to 30 days or up to 1200 MME Medical Necessity



123

### Opioid Prescribing Requirements in TN, PC 1039 and PC 124


Requirements for up to a 3 Day or up to a 180 MME Rx	
Check the CSMD	Use sound medical judgment
Conduct thorough evaluation of patient	Use sound medical judgment
Obtain informed consent	Use sound medical judgment
Include ICD-10 on chart and Rx	Not Required
Document consideration of alternative Tx and why risk of pain exceeds risk of developing a SUD or an OD event	Not Required
Additional information on RX	Not Required



124

### Opioid Prescribing Requirements in TN, PC 1039 and 124


Requirements for up to 10 Day or up to 500 MME Rx	If Necessary for Acute Pain
Check the CSMD	✓
Conduct thorough evaluation of patient	✓
Obtain written informed consent	✓
Include ICD-10 Code on chart and Rx	✓
Document consideration of alternative Tx and why risk of pain exceeds risk of developing a SUD or an OD event	Not Required
Additional information on RX	Not Required



125

### Opioid Prescribing Requirements in TN, PC 1039 and PC 124


Requirements up to 30 Day or up to 1200 MME	More than Minimally Invasive Surgery
Check the CSMD	✓
Conduct thorough evaluation of patient	✓
Obtain written informed consent	✓
Include ICD-10 Code on chart and Rx	✓
Document consideration of alternative Tx and why risk of pain exceeds risk of developing a SUD or an OD event	✓
Additional information on RX	"Surgery"



126

### Opioid Prescribing Requirements in TN, PC 1039 and PC 124


Requirements up to 30 Day or up to 1200 MME	Medical Necessity Exemption
Check the CSMD	✓
Conduct thorough evaluation of patient	✓
Obtain written informed consent	✓
Include ICD-10 on chart and Rx	✓
Document consideration of alternative Tx and why risk of pain exceeds risk of developing a SUD or an OD event	✓
Additional information on RX	"Medical Necessity"



127

### Exemptions: Rx must include the ICD-10 code and the word Exempt

- Treated with an opioid ≥ 90 days in the last year
- Active Cancer, Palliative Care, Hospice Care
- Sickle Cell Disease
- Treated by a pain management specialist
- Treated for OUD with MAT – Buprenorphine or Methadone
- Patients with "Severe Burns" or "Major Physical Trauma"
- Administration in a licensed healthcare facility




128



## Informed Consent

**Requirements before Rx'ing > 3 day or 180 MME total amount**

- Prescriber must sufficiently explain and disclose adequate information to allow the patient to make a knowing and voluntary decision to give written consent for opioid therapy.
  - Must include: Risks, effects, and characteristic of opioids including risks of physical dependency, addiction, misuse and diversion
  - What to expect when taking an opioid and how opioids should be used
  - Reasonable alternatives to opioids
- Discussion of whether the patient should take opioids
- Women of childbearing age (15-44) and ability
  - Information regarding neonatal abstinence syndrome (NAS)
  - Methods of birth control
  - Availability of free or reduced cost birth control
- A reasonable opportunity for questions by the patient



129


## 2019 PC 124

Effective January 1, 2021 - All Schedule II, III, IV & V **must** be electronically prescribed- can apply for waiver

Defined

- Severe Burn
- Major Physical Trauma
- Palliative Care
- Serious Illness


May prescribe up to 14 days for the treatment of upper respiratory infection (URI)  
*(codeine preparations for cough)*



130

## 2019 PC 124

Palliative Care	Specialized treatment for patients facing serious illness, which focuses on providing relief of suffering through a multidisciplinary approach to maximize quality of life
Serious Illness	Health condition that carries a high risk of mortality and negatively impacts a patient's daily bodily functions
Severe Burn	Injury sustained from thermal or chemical causes resulting in second degree or third-degree burns
Major Physical Trauma	Serious injury sustained due to blunt or penetrating force resulting in serious blood loss, fracture, significant temporary or permanent impairment, or disability




131

## What about Tramadol?

“The U.S. Food and Drug Administration (FDA) and the National Institutes of Health (NIH) classify Tramadol as opioid analgesic used for the therapy of mild-to-moderate pain. It is now considered a controlled substance for purposes of reporting to the CSMD.”

Tramadol 100mg = 10mg of Morphine (10MME)



132

### Morphine Milligram Equivalents

Opioid conversion factor to Morphine	Dosage	Frequency	MME/Day	Total MME from a 3-day Rx
Oxycodone 1.5 = 1	5 mg	TID	22.5 MME	67.5 MME
	10mg	TID	45 MME	135 MME
Hydrocodone 1 = 1	5 mg	TID	15 MME	45 MME
	10 mg	QID	40 MME	120 MME
Hydromorphone 4 = 1	4 mg	QID	64 MME	192 MME



133

### Vignette #4

Mr. Brute, 32-year-old, who retired from the NFL 5 years ago after a career ending injury. Since the post-operative period, he has been prescribed oxycodone SR 30mg BID for the last 4 years. After attending the funeral of a teammate that died by overdose, he stopped his medication. He had withdrawal symptoms, so he restarted the medication. He comes in the office today and demands to be off of this medication.

- What are the red flags?
- What is the diagnosis?
- What do you do?



134

### Vignette #4

What are the red flags

1. Dependence does not equal a Substance Use Disorder
2. What has been treated for the last 4 years?
3. His risk of overdose increased after withdrawal when starting back the same medication.
4. In Tennessee, SL buprenorphine can only be used for OUD.



135

### HHS Tapering of Long-Term Opioid Analgesics For Chronic Pain Patients

- Opioids shouldn't be tapered rapidly or discontinued suddenly due to risks of significant opioid withdrawal.
  - Acute withdrawal symptoms, pain exacerbation, serious psychological distress, suicidality
  - Patients may seek other sources of opioids (including illicit), to treat their pain or withdrawal symptoms
- HHS does not recommend abrupt opioid dose reduction or discontinuation unless there are indications of a life-threatening issue, such as warning signs of impending overdose

HHS Guide for Clinicians on Dosage Reduction of Long Term Opioids. October 2019



136

## HHS Tapering of Long-Term Opioid Analgesics

Consider tapering opioid therapy to a reduced opioid dosage or discontinuation when:

- Pain improves
- The patient requests dosage reduction or discontinuation
- Function is not meaningfully improved
- No benefit from the higher dose
- There is evidence of opioid misuse
- Side effects diminish quality of life or impair function
- The patient has co-occurring medical conditions that increase risk for adverse outcomes, i.e. COPD

HHS Guide for Clinicians on Dosage Reduction of Long Term Opioids. October 2019



137



138



## Tennessee Chronic Pain Guidelines

Clinical Practice Guidelines for Outpatient Management of Chronic Non-Malignant Pain

3<sup>rd</sup> Edition



Disclosure: I am on the Steering Committee for the Chronic Pain Guidelines

139

## Tennessee Chronic Pain Guidelines

- Indicated for primary care, not pain specialists
- Are accepted medical practice
- Available online at Tennessee - Department of Health website

<https://www.tn.gov/content/dam/tn/health/documents/ChronicPainGuidelines.pdf>




140

## Chronic Pain Guidelines

**SECTIONS I, II, III**

**APPENDICIES**


- Core Competencies
- TN Together
- Pain Medicine Specialist
- Mental Health Assessment Tools
- Medication Assisted Treatment Program
- Women's Issues: Women of Child Bearing Age
- Pregnant Women
- Risk Assessment Tools
- CSMD:
- SAMPLE INFORMED CONSENT: Controlled Substance Agreement
- SAMPLE PATIENT AGREEMENT: Controlled Substance Treatment
- Urine Drug Testing
- Tapering Protocol
- Morphine Equivalent Dose
- Naloxone
- Safety Net
- Prescription Drug Disposal
- Use of Opioids in Workers' Compensation Medical Claims
- Medical Treatment Guidelines for Pain Management for Workers' Compensation
- Chronic Pain Guideline Algorithm Women's Health
- Chronic Pain Guideline Algorithm Opioid Therapy
- Non-Opioid Therapies
- Acute Pain
- Perioperative Pain Management
- Tennessee Emergency Department Opioid Prescribing Guidelines
- Pediatric Pain
- Terms/Definitions
- Links
- References



141

## Tennessee Chronic Pain Guidelines

Section	
I	<b>Prior to Initiating:</b> Opioid Therapy for Chronic Non-Malignant Pain
II	<b>Initiating:</b> Opioid Therapy for Chronic Non-Malignant Pain
III	<b>Ongoing:</b> Opioid Therapy for Chronic Non-Malignant Pain




142

Tennessee Chronic Pain Guidelines

**I: Prior to Initiating Opioid Therapy:**

- Continuation by itself is not a good reason
- Stepwise approach, using non-opioids first
- Discuss birth control and pregnancy at each visit
- Document: H+P, labs and imaging
- Telemedicine SHALL not be used to treat chronic pain




143

Tennessee Chronic Pain Guidelines

**I: Prior to Initiating Opioid Therapy:**

- Evaluation of the pain; nature, intensity, treatments and function
- Evaluate for comorbidity
- Document a review of systems
- Screen for mental health disorders including SUD's
- Review old medical records



144

## Tennessee Chronic Pain Guidelines

### I: Prior to Initiating Opioid Therapy:

- Establish a Dx to justify medication
- Use assessment tools to determine risk
- Toxicology screening- urine, hair, nail, etc.
- Check the CSMD
- Formulate/document a Treatment plan
- Primary goal is improvement in Function



145

## Tennessee Chronic Pain Guidelines

### II: Initiating Opioid Therapy

- Risk of overdose starts at 40 MMED
- Risk greatly increases @ 80-100 MMED
- Start low, go slow with IR, use therapeutic trial
- Avoid benzodiazepines; if BZD are used and >120 MMED refer to mental health
- Informed consent, treatment agreement
- Monitor for signs of diversion



146

## Tennessee Chronic Pain Guidelines

### III: Ongoing Opioid Therapy

- Use Single provider or practice, single pharmacy
- Use lowest effective dose
- Use 1 short acting opioid
- Document the Five A's
  - Analgesia
  - Activities of daily living
  - Adverse side effects
  - Aberrant behaviors
  - Affect



147

## Tennessee Chronic Pain Guidelines

### III: Ongoing Opioid Therapy

- > 120 MME DD refer for consultation
- Check the CSMD
- Monitor for aberrant behavior
- Utilize ongoing risk assessments
- D/C when risks > benefits




148

## Tennessee Chronic Pain Guidelines

### II and III: Initiating and Ongoing Opioid Therapy - Women's Health:

- Discuss birth control at each visit
- Use consent form about risks of opioids and pregnancy
- Refer to OB if pregnancy occurs
- Obtain Urine Pregnancy Test prior to initiating opioids and at follow-up visits



149

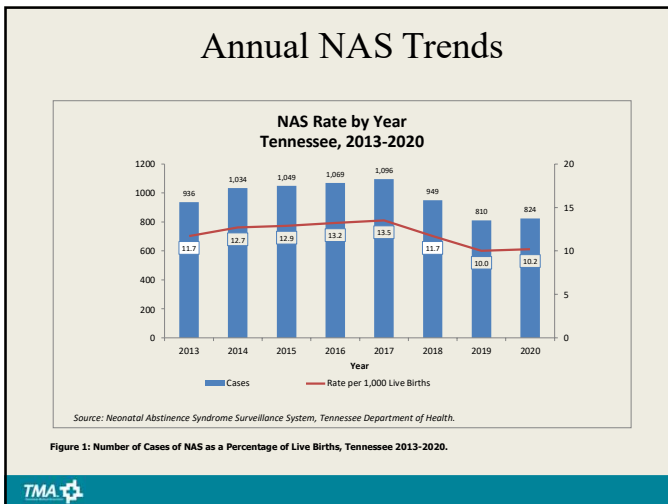
## Women's Health - Pregnancy

Appropriate discontinuation has been shown to be safe for fetus during pregnancy. However, unintended consequences from tapering may outweigh benefits.

Source: Bell J, Towers CV, Hennessy MD, et al. Detoxification from opiate drugs during pregnancy. Am J Obstet Gynecol 2016.




150



151


## Vignette #5

Mr. Pele comes to the E.D. after hurting his foot playing indoor soccer. He has a 5<sup>th</sup> metatarsal mid shaft spiral fracture confirmed by X-ray. As part of the social history Mr. Pele tells the doctor that he is a recovering alcoholic with 8 years. He is referred to an orthopedic surgeon and placed in a Bledsoe boot. He is prescribed hydrocodone/APAP, 5mg/325mg, # 21 and told not to worry about the narcotics, "its not booze" → Mr. Pele had good pain relief from APAP 1000mg he took prior to coming to ED.



152

## Vignette #5

What are the red flags 

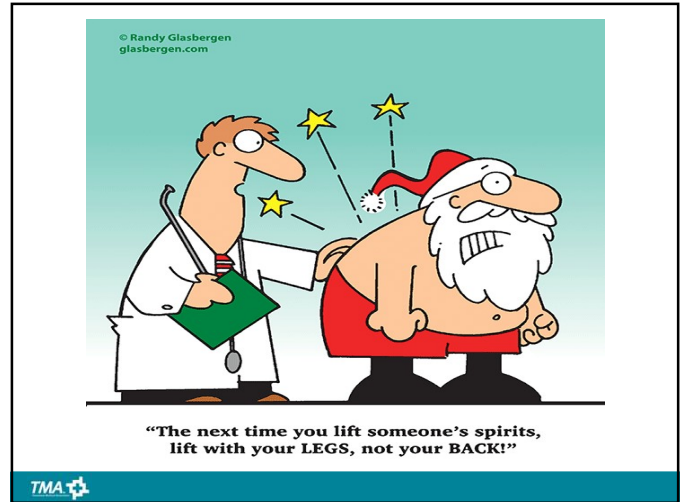
Addiction is one disease with many faces. Recovering addicts can be inadvertently triggered by a medication that activates the reward - craving process. By definition all scheduled medications have this potential.

This occurs with way too much frequency.

Mr. Pele throws out the Rx and takes APAP 1000mg with good pain relief.



153



154

## Burden of Disease

JAMA 2013

Americans suffered as much disability from back and neck pain in 2010 as they did in 1990 prior to increase in opioid prescribing and consumption.



155

## Evidence Based Medicine

Opioids:

No prospective study has clearly demonstrated long-term safety or long-term efficacy in terms of analgesia or functional improvement.



156

**Evidence Based Medicine**

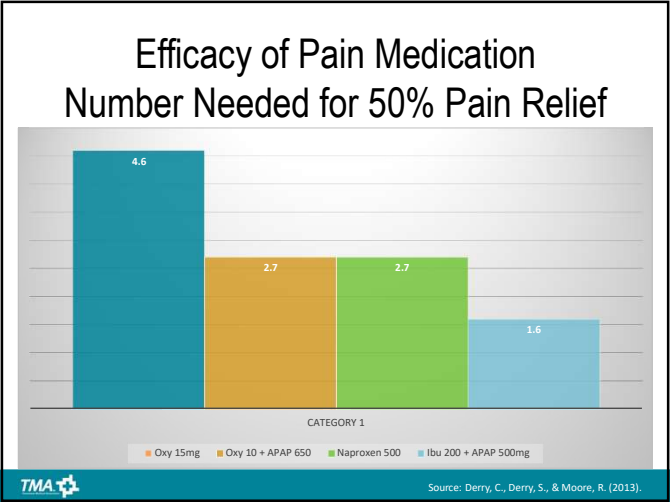
**Long-term Opioid Therapy for Neuropathy**

“Long-term opioid therapy did not improve functional status but rather was associated with a higher risk of subsequent opioid dependency and overdose.”

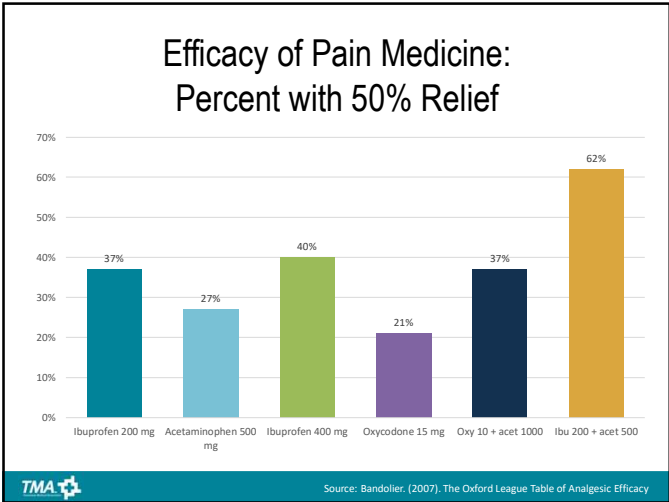
Source: AMA Neurol. 2017;74(7):773-779.doi:10.1001/jamaneurol.2017.0486 Published online May 22, 2017.



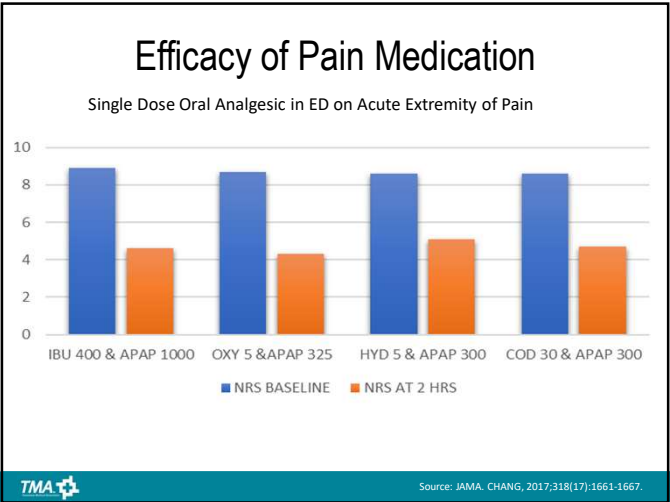
157



158



159



160




### Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain. SPACE Clinical Trial

**240 randomized patients – 12 months**

- ❖ Pain was significantly better in the nonopioid group.
- ❖ Adverse medication-related symptoms were significantly more common in the opioid group.


Treatment with opioids was not superior to treatment with nonopioid medications for improving pain-related function over 12 months. Results do not support initiation of opioid therapy for moderate to severe chronic back pain or hip or knee osteoarthritis pain.

Source: JAMA. 2018;319(9):872-882




161

Choose treatment options that are appropriate for the patient and for the type of pain.



GLASBERGEN © Randy Glasbergen. www.glasbergen.com

"Lose some weight, quit smoking, move around more and eat the carrot."



162


### Pain Categories

Acute

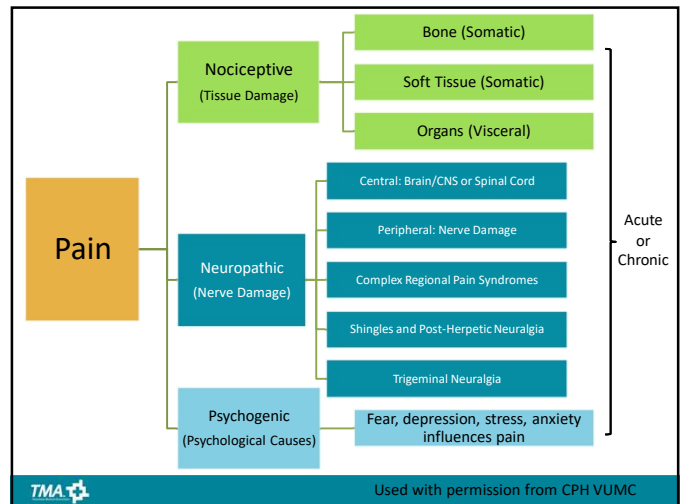
The pain is expected to be over soon, but it can last seconds, weeks, or longer.

Chronic

The pain lasts beyond the healing of the causative injury and continues for several months. Commonly pain lasting > 3 months.



163



164

## Analgesic Medications

### Acetaminophen

- 3 gm/day maximum

### Side Effects

- Hepatotoxicity
- Ceiling effect in terms of analgesic efficacy
- Little mood alteration



165

## Analgesic Medications

### NSAIDs / Salicylates:

- Aspirin
- Propionic Acids: Ibuprofen, Naproxen
- Indoles: Indomethacin

### Side Effects

- Ceiling effect in terms of analgesic efficacy
- Little mood alteration
- Erosion of protective mucus in GI tract.
- Kidney toxicity



166

## Antidepressant Medications for Pain Augmentation

### Modulates the descending inhibitory pathways.

Improves sleep hygiene

Tricyclic Antidepressants- TCAs

- Amitriptyline

Serotonin-Norepinephrine Reuptake Inhibitors- SNRI's

- Duloxetine



167

## Anticonvulsant Medications for Pain Augmentation

Carbamazepine, oxcarbazepine, topiramate

- Voltage dependent Na<sup>+</sup> channel blocker

Gabapentin, Pregabalin

- Voltage dependent Ca<sup>++</sup> channel blockade

Pregabalin

- Voltage dependent Ca<sup>++</sup> channel blockade
- Decreases the release of the glutamate, noradrenalin and substance P



168


## Topical Medications for Pain

**Capsaicin**

- Derivative of Red Pepper
- Depletes substance P at nociceptive transmission

**Local Anesthetics**


- Lidocaine (topical, local or IV infusion)



169

## Non-Pharmacologic Interventions for Pain Augmentation


- Ice/heat
- Yoga/Tai Chi
- Chiropractic
- Biofeedback
- Acupuncture
- Hypnotherapy
- Mindfulness Based Stress Reduction
- Exercise/ Physical Therapy
- Cognitive Behavioral Therapies
- Numerous others



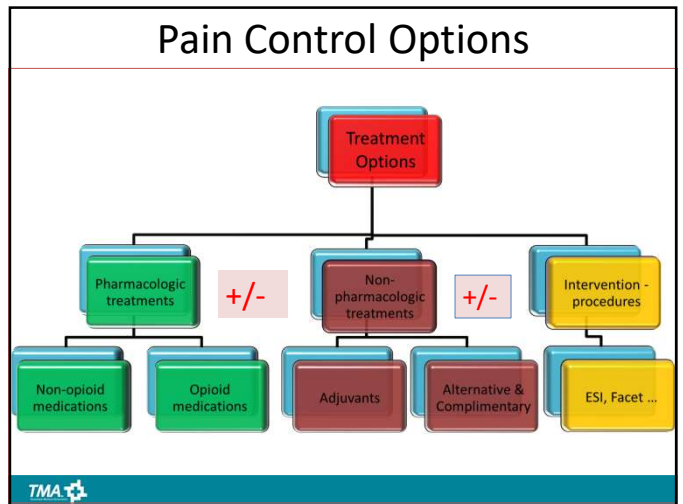
170

## Interventional Procedures for Treatment of Pain

- Trigger Point Injection
- Tendon, bursa or intra-articular Injections
- Peripheral nerve blocks
- Sympathetic nerve blocks
- Epidural, Facet, Spinal injections
- Spinal stimulator
- TENS unit
- Many others



171



172

## Documentation of Pain

### Assess and document the 5 A's

- A**nalgesia - Pain relief
- A**ctivity of Daily Living- Psychosocial function
- A**ffect - Objective mood
- A**dverse Reactions - Side effects
- A**berrant Behaviors - Diversion of Rx's



173


## Vignette #6

Mrs. V. comes to your walk-in, urgent-care clinic reporting that yesterday she ran out of her pain pills. She reports that she was Rx'ed oxycodone ER 20mg TID, #90 2 weeks ago. ▶ She underwent an L4-L5 laminectomy 18 months ago and is wearing a back brace. She is traveling to Florida in the morning. Her UDS is positive for hydromorphone. ▶ She reports she ran out because she needed higher doses to control her pain. ▶ She is frail, diaphoretic, c/o diarrhea and is easily agitated. ▶



174

## Vignette #6

What are the red flags 

1. She ran out of medications early.
2. Pseudo-addiction: not a DSM disorder.
3. UDS: Need to know positives and negatives.
4. Recognition of early withdrawal.



175

## Vignette #6

*Pain*, 36 (1989) 363-366  
Elsevier

363

PAI 01377

### *Clinical Note*

#### Opioid pseudoaddiction — an iatrogenic syndrome <sup>1</sup>

David E. Weissman <sup>\*2</sup> and J. David Haddox <sup>\*\*</sup>

<sup>\*</sup> Division of Hematology / Oncology, and <sup>\*\*</sup> Departments of Anesthesiology and Psychiatry, Medical College of Wisconsin, Milwaukee, WI (U.S.A.)

(Received 1 June 1988, accepted 16 November 1988)

A 17-year-old man with acute leukemia ... hospitalized with fevers and treatment-related bone-marrow aplasia. Several days into his hospital course he began complaining of continuous chest wall pain..."

"The case illustrates features of the syndrome we have termed pseudoaddiction."



176

Thank you.

Questions?



177

## Post Test: Questions

1. According to the International Narcotic Control Board the USA consumes what percentage of legitimately produced hydrocodone?

- A. 1%
- B. 24%
- C. 49%
- D. 74%
- E. 99%



178

## Post Test: Questions

1. According to the International Narcotic Control Board the USA consumes what percentage of legitimately produced hydrocodone?

- A. 1%
- B. 24%
- C. 49%
- D. 74%
- E. 99%



179

## Post Test: Questions

2. Opioid consumption increased in the USA from 1990 through 2010 because of?

- A. More painful long bone fractures occurred.
- B. Industry promotion of opioids to primary care doctors.
- C. The institution of the 5th Vital sign.
- D. A, B, & C
- E. B and C only



180

## Post Test: Questions

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  - E. B and C only

TMA 

181

## Post Test: Questions

3. The Overdose death rate in Tennessee has \_\_\_\_\_ each year from 2013 through 2020?
- A. Increased
  - B. Decreased
  - C. Not Changed
  - D. Increased but then decreased
  - E. Decreased but then increased

TMA 

182

## Post Test: Questions

3. The Overdose death rate in Tennessee has \_\_\_\_\_ each year from 2013 through 2019?
- A. Increased
  - B. Decreased
  - C. Not Changed
  - D. Increased but then decreased
  - E. Decreased but then increased

TMA 

183

## Post Test: Questions

4. The compulsive nature of Substance Use Disorders is caused by what organ?
- A. Spleen
  - B. Liver
  - C. Kidney
  - D. Brain
  - E. Heart

TMA 

184

## Post Test: Questions

4. The compulsive nature of Substance Use Disorders is caused by what organ?
- A. Spleen
  - B. Liver
  - C. Kidney
  - D. Brain
  - E. Heart



185

## Post Test: Questions

5. The reward circuit includes the Ventral Tegmental Area and the \_\_\_\_\_?
- A. Triune Brain
  - B. Reptilian Brain
  - C. Nucleus Accumbens
  - D. NeoCortex
  - E. Nucleus Pulposus



186

## Post Test: Questions

5. The reward circuit includes the Ventral Tegmental Area and the \_\_\_\_\_?
- A. Triune Brain
  - B. Reptilian Brain
  - C. Nucleus Accumbens
  - D. NeoCortex
  - E. Nucleus Pulposus



187

## Post Test: Questions

6. Adverse Childhood Experiences (ACE) correlate with the development of \_\_\_\_?
- A. Obesity
  - B. Suicide Attempts
  - C. Anxiety
  - D. Substance Use Disorders
  - E. All of the above



188

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189

## Post Test: Questions

7. A person that has developed an Alcohol Use Disorder in their early 20's had to have prior consumption of alcohol?
- A. True
  - B. False



190

## Post Test: Questions

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- A. True
  - B. False



191

## Post Test: Questions

8. In Tennessee physicians are required to check the Controlled Substance Database (CSMD).
- A. When prescribing a course of an antibiotic.
  - B. When prescribing a course of antibiotics for sepsis secondary to IV drug use.
  - C. When prescribing a new 5-day course of hydrocodone.
  - D. When prescribing a new 2-day course of oxycodone.



192



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193

## Post Test: Questions

9. The Tennessee Chronic Pain Guidelines are meant only for Pain Management Specialists.
- A. True
  - B. False



194

## Post Test: Questions

9. The Tennessee Chronic Pain Guidelines are meant only for Pain Management Specialists.
- A. True
  - B. False



195

## Post Test: Questions

10. Neonatal Abstinence Syndrome (NAS) is caused when \_\_\_\_\_ are consumed during pregnancy.
- A. Only illicit opioid drugs (like heroin)
  - B. Only prescribed opioids (like oxycodone)
  - C. Only prescribed or diverted buprenorphine and/or methadone
  - D. All the above (A, B & C) can cause NAS.



196

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