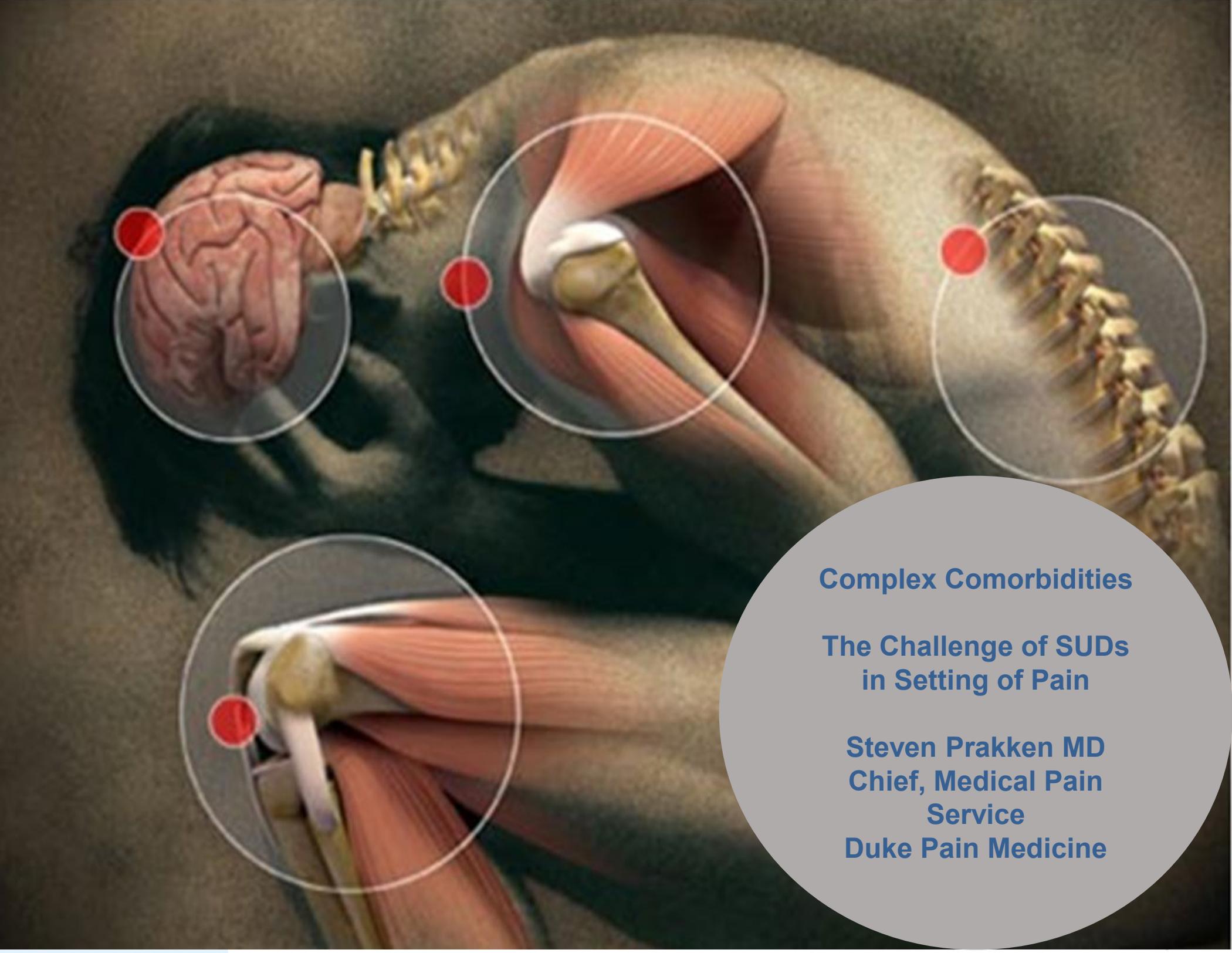




# CCNC Opioid SPARC ECHO

May 29, 2019, Wednesday, 12:30PM-1:20PM

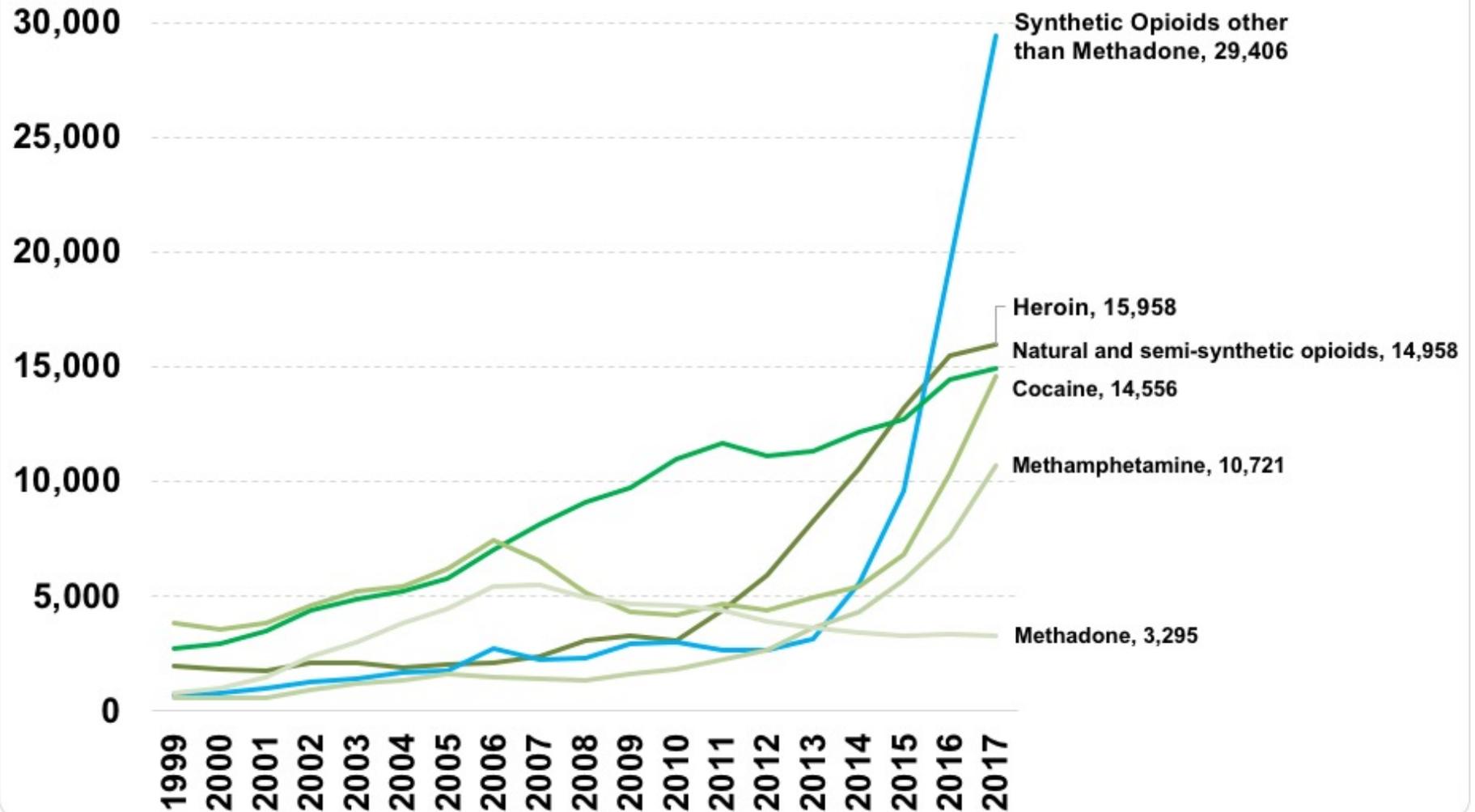


**Complex Comorbidities**

**The Challenge of SUDs  
in Setting of Pain**

**Steven Prakken MD  
Chief, Medical Pain  
Service  
Duke Pain Medicine**

# Drugs Involved in U.S. Overdose Deaths, 1999 to 2017





# Opioid Misuse and Addiction In Pain

# Substance Related Disorders

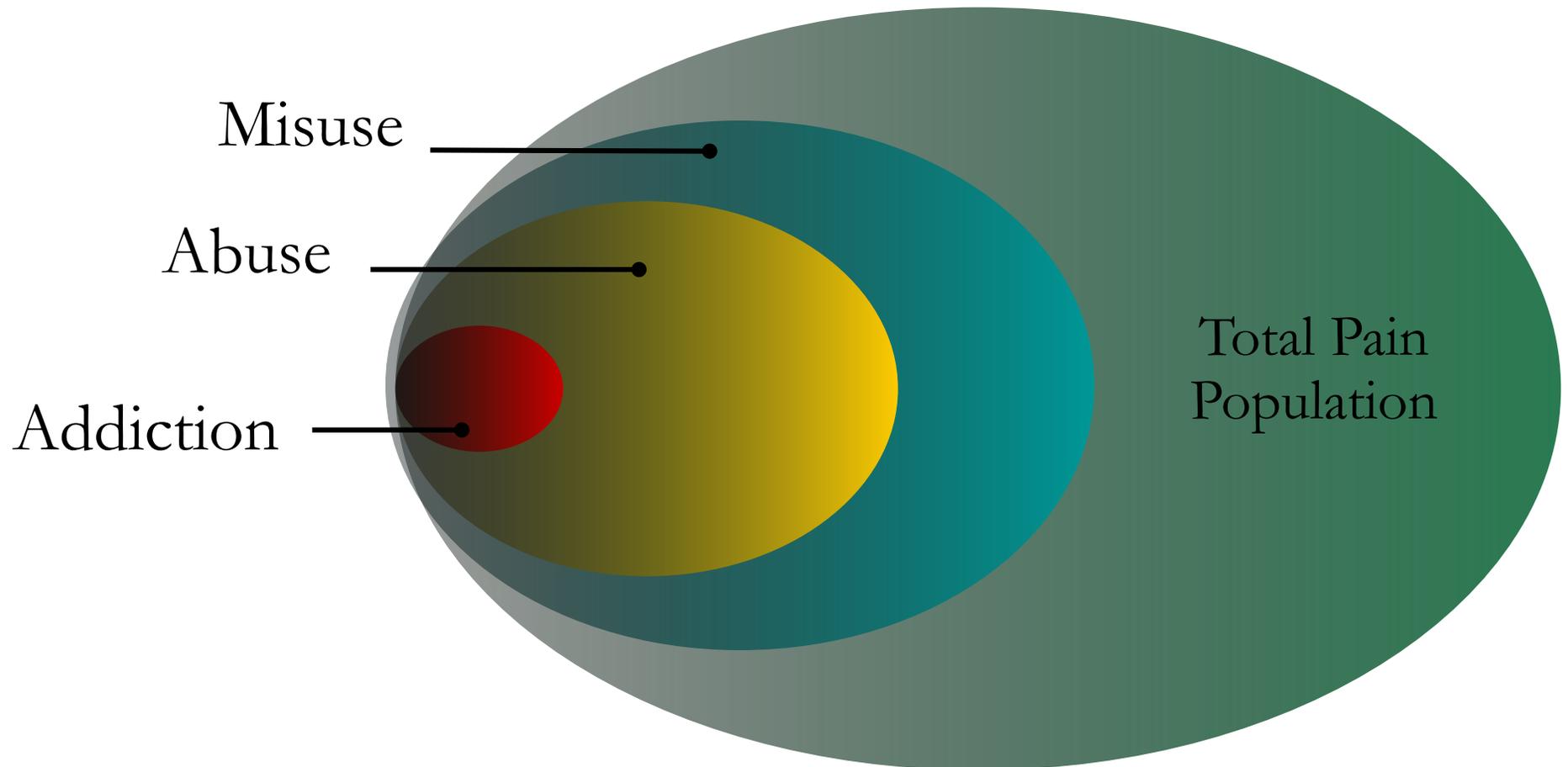
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- Pharmacological indicators
  - Tolerance
  - Withdrawal
- Impaired control
  - Greater amount and longer use
  - Unable to quit
  - Time to obtain extensive
  - Craving
- Social impairment
  - Role failure
  - Use with known social harm
  - Social loss due to use
- Risky use
  - Use in spite of physical danger
  - Use with continued psych/social harm

## Severity score

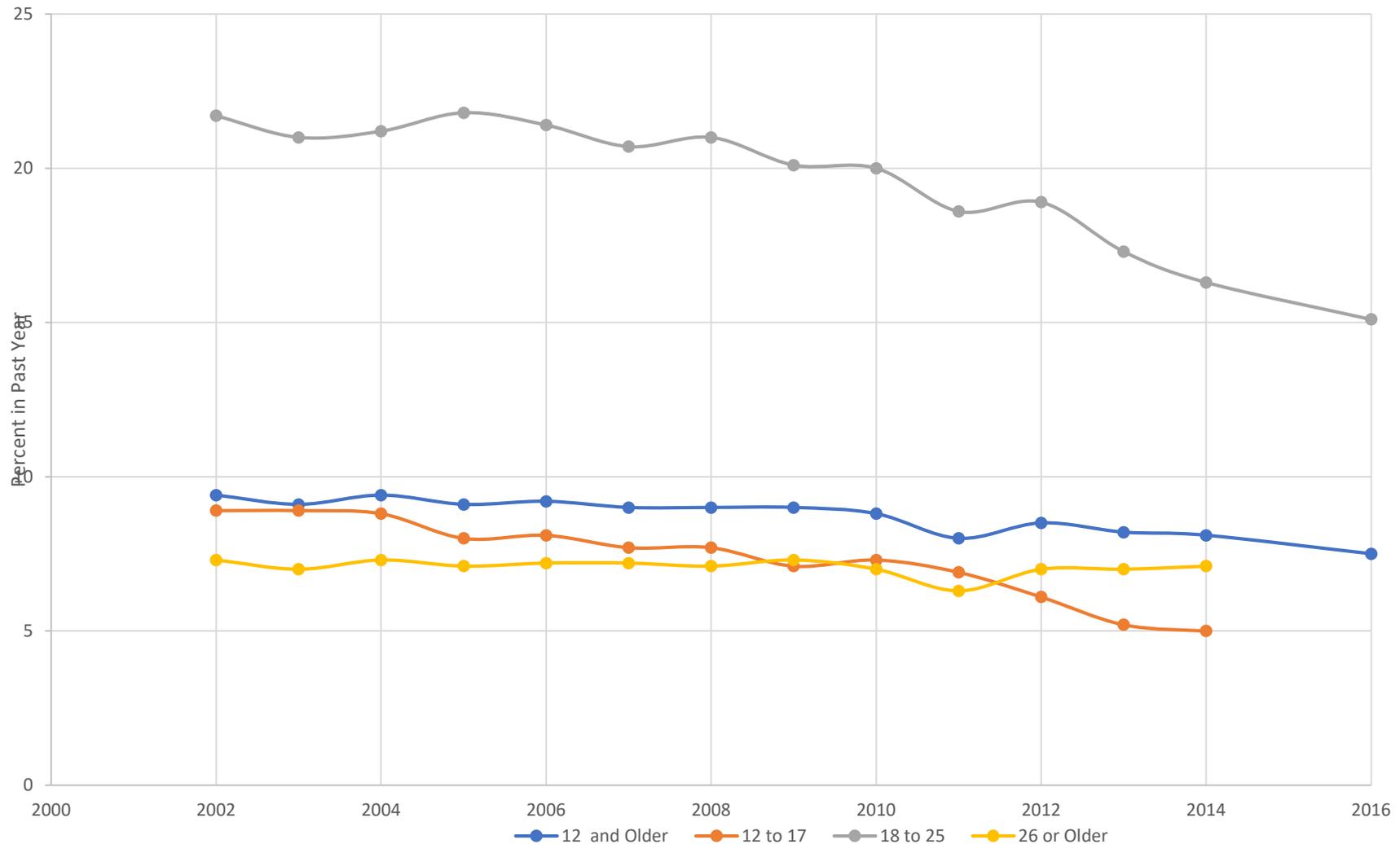
- Mild (2-3)
- Moderate (4-5)
- Severe (6 and more)

# Relative Prevalence of Misuse, Abuse, and Addiction

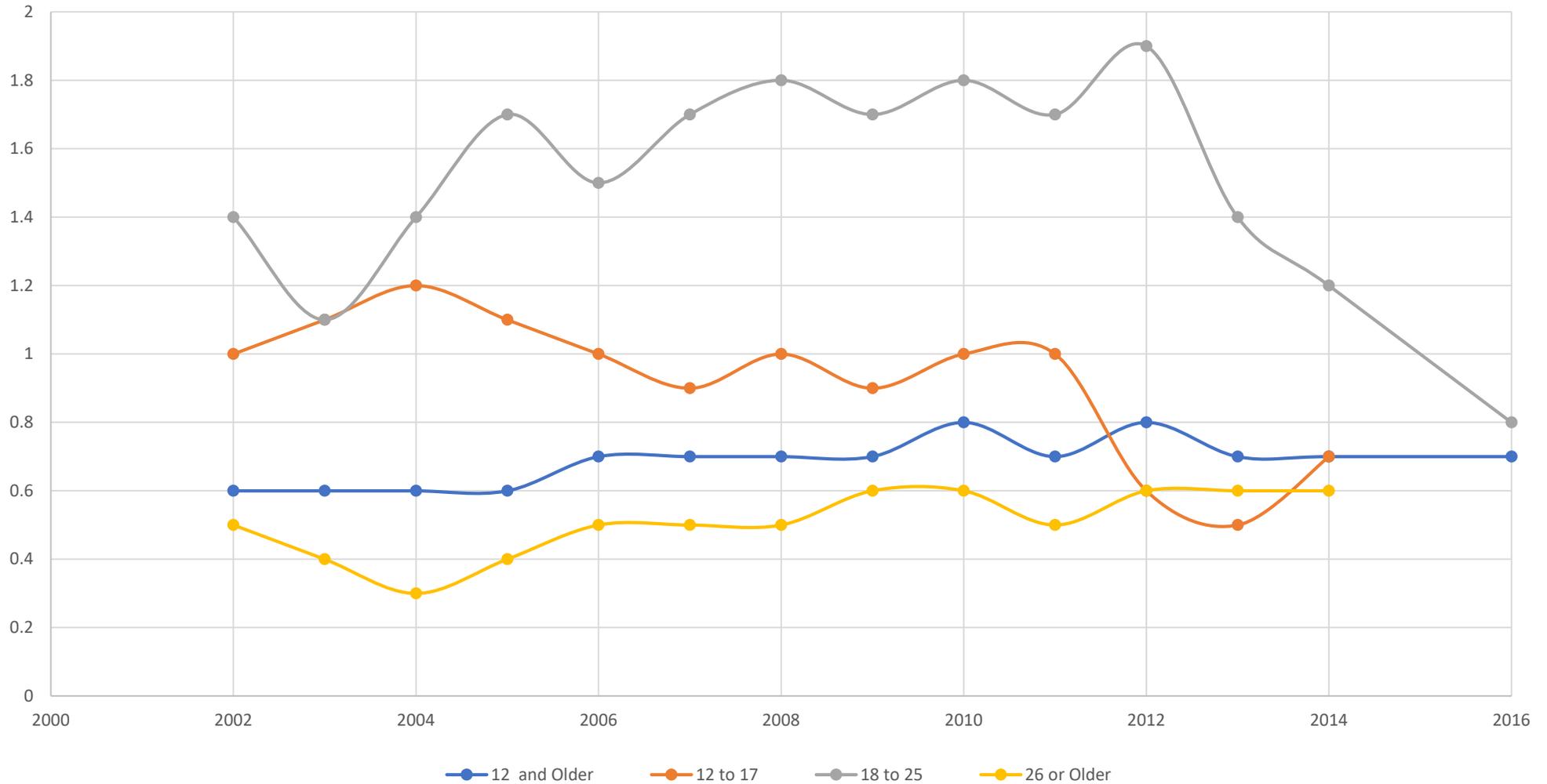


Webster LR, Webster RM. *Pain Med.* 2005;6(6):432-442.

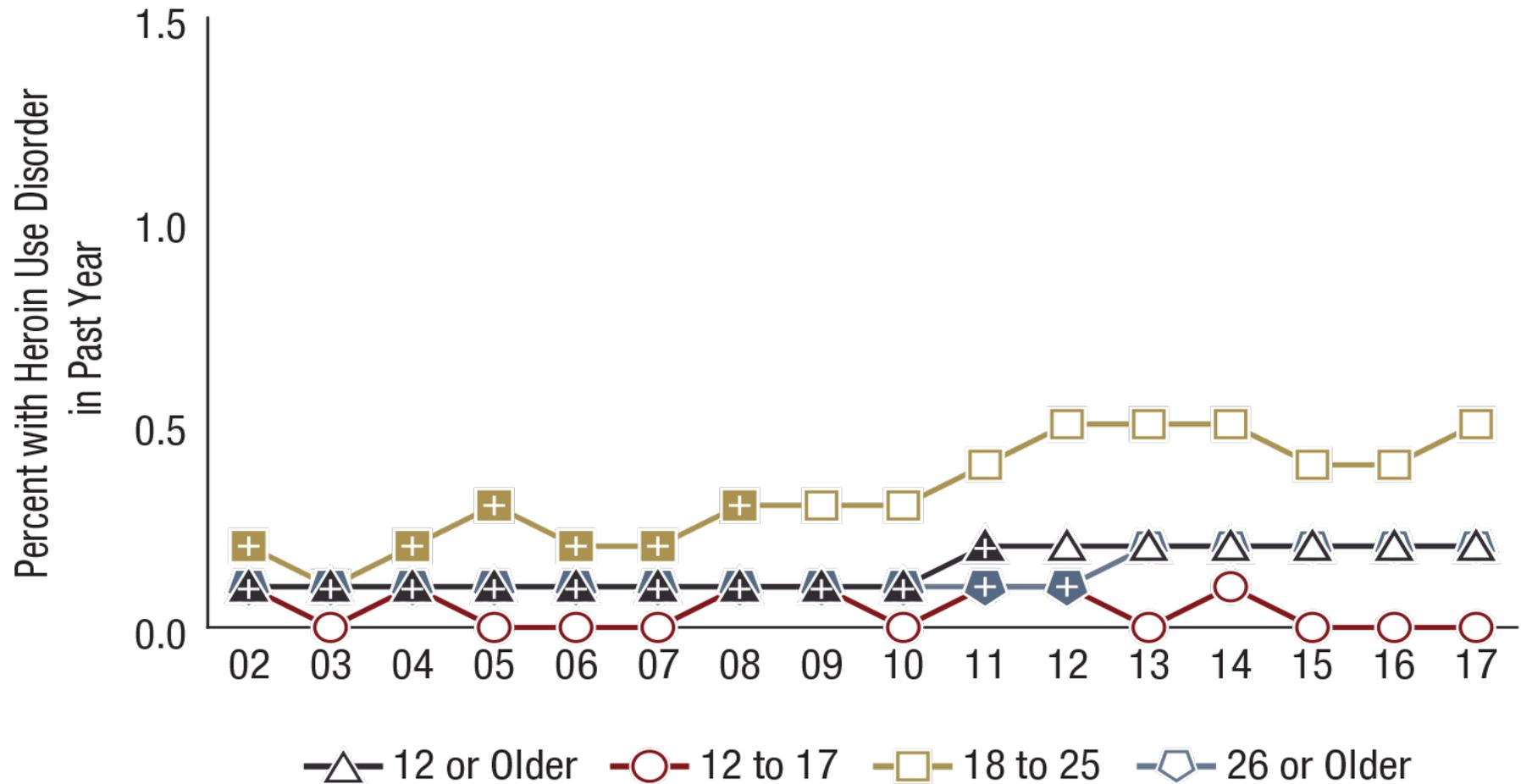
# Substance Use Disorder Past Year, Aged 12 or Older



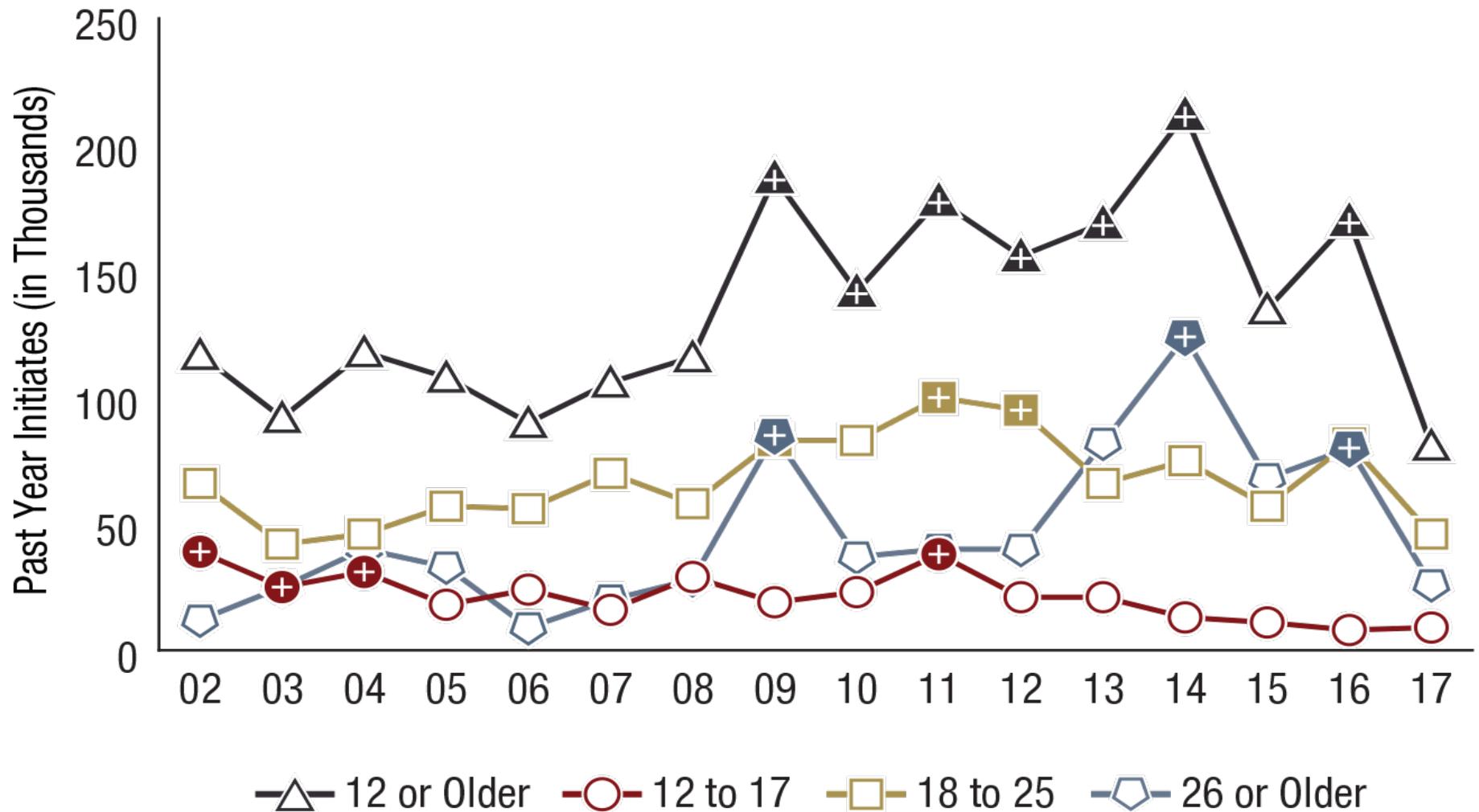
# Pain Reliever Use Disorder Past Year, Aged 12 or Older



# Heroin Use Disorder, Past Year, 12 or Older, 2002-2017



# Past Year Heroin Initiates, Aged 12 or Older



# PAIN

in Substance Use Disorder

# Substance Use Disorder (SUD)

---

- Rate in “last year” for 2016, SAMHSA
  - 7.5% of population with SUD (20.1million)
    - 75% with ETOH
    - 37%% with illicit drug
    - 12% with both
  
- Rate in Pain and Primary Care
  - 8% - 12%. (Systematic review from 38 studies, with 26% primary care settings, 53% pain clinics)
  
- Chronic pain in opioid addiction is 29% to 60%

2017 NSDUH Report, Vowles 2015, Peles 2008

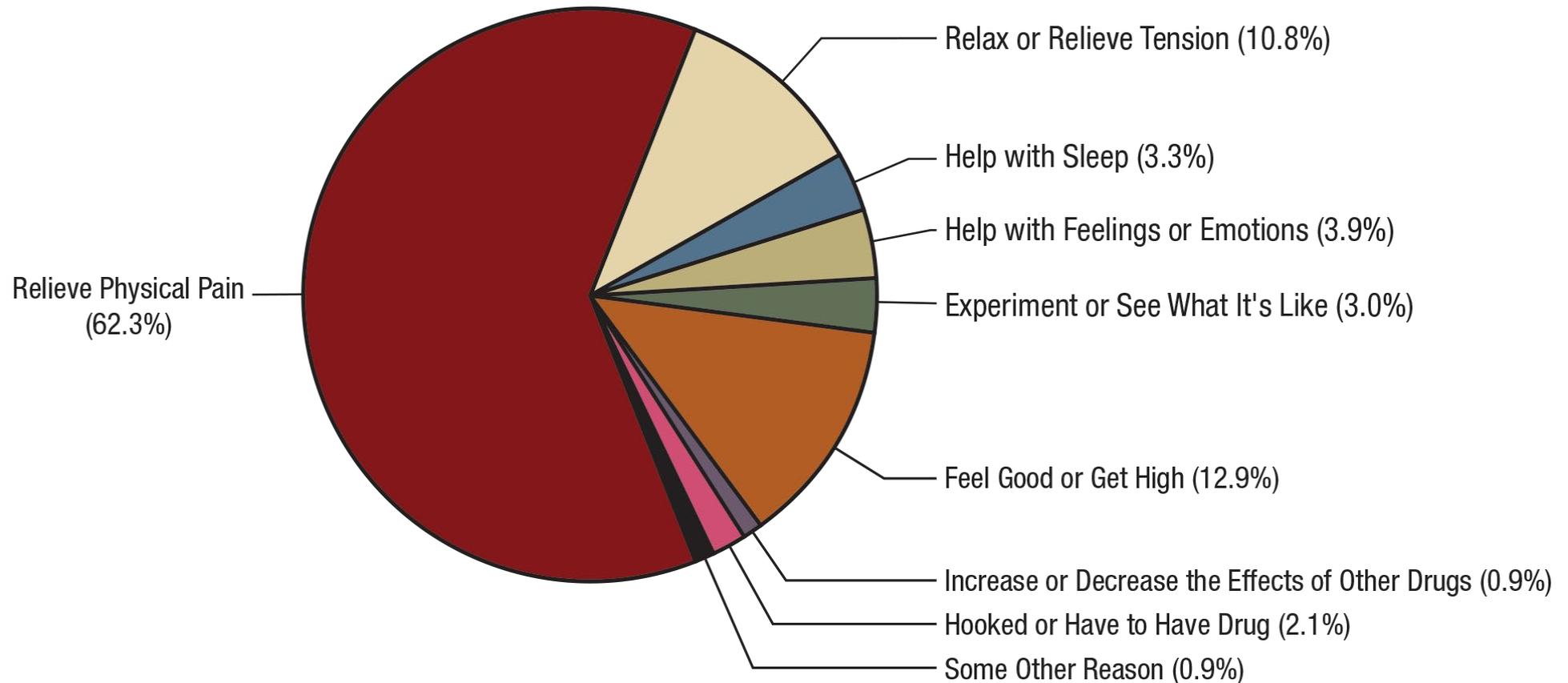
# Opioid Misuse

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- Rate in last year for 2016, SAMHSA
  - 4.4% of population (11.8 mil)
    - No change from 2009-2016
  - 80% say that their misuse is for pain, tension, sleep, or mood
  - 12% say they use to “get high or feel good”
- Rate in Pain and Primary Care
  - 21-29% (Systematic review from 38 studies, with 26% primary care settings, 53% pain clinics)
- Misuse is not SUD

2017 NSDUH Report, Vowles 2015

# Reason for Prescription Pain Reliever Misuse, 12 or Older, 2016



11.5 Million People Aged 12 or Older Who Misused Prescription Pain Relievers in the Past Year

80% say that their misuse is for pain, tension, sleep, or mood

SAMHSA 2016

# Opioid Misuse; What to do?

## Use as cue to Functional Need!

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- Opioid stim
  - Depressed and need tx
  - ADHD tx
  - Don't give sleep aides if stimulated by opioid
- Opioid sedation
  - Anxiety relief relative to pain
  - Helping rumination
  - Sleeping aide
- MRJ
  - Helping pain and anxiety
- Misuse a cue about what they feel is needed
  - So replace it
  - Likely not SUD

# Opioid Stimulation Syndrome

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- Somatic and cognitive activation
  - Increased talking
  - Sleep disturbance
    - Sedative use/overuse
  - Irritability
    - Discharge from clinic
    - Irritable mania possible
  - Impulsivity
    - Medication misuse
  - Addiction
  - Opioid induced hyperalgesia?

# Prescription Opioid Use

N=12 Men and Women (24 total)

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## ➤ Motive for use

- 91% energy (100% women 83% men)
- 83% pain (100% women and 66% men)
- 82% euphoria/pleasure
- 50% stress
- 47% withdrawal

## ➤ Route

- 100% pill
- 45% crush/snort
- 62% chew
- 29% inject

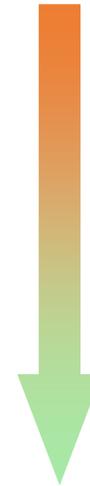
Back PhD 2011

# Stimulation from Opioids

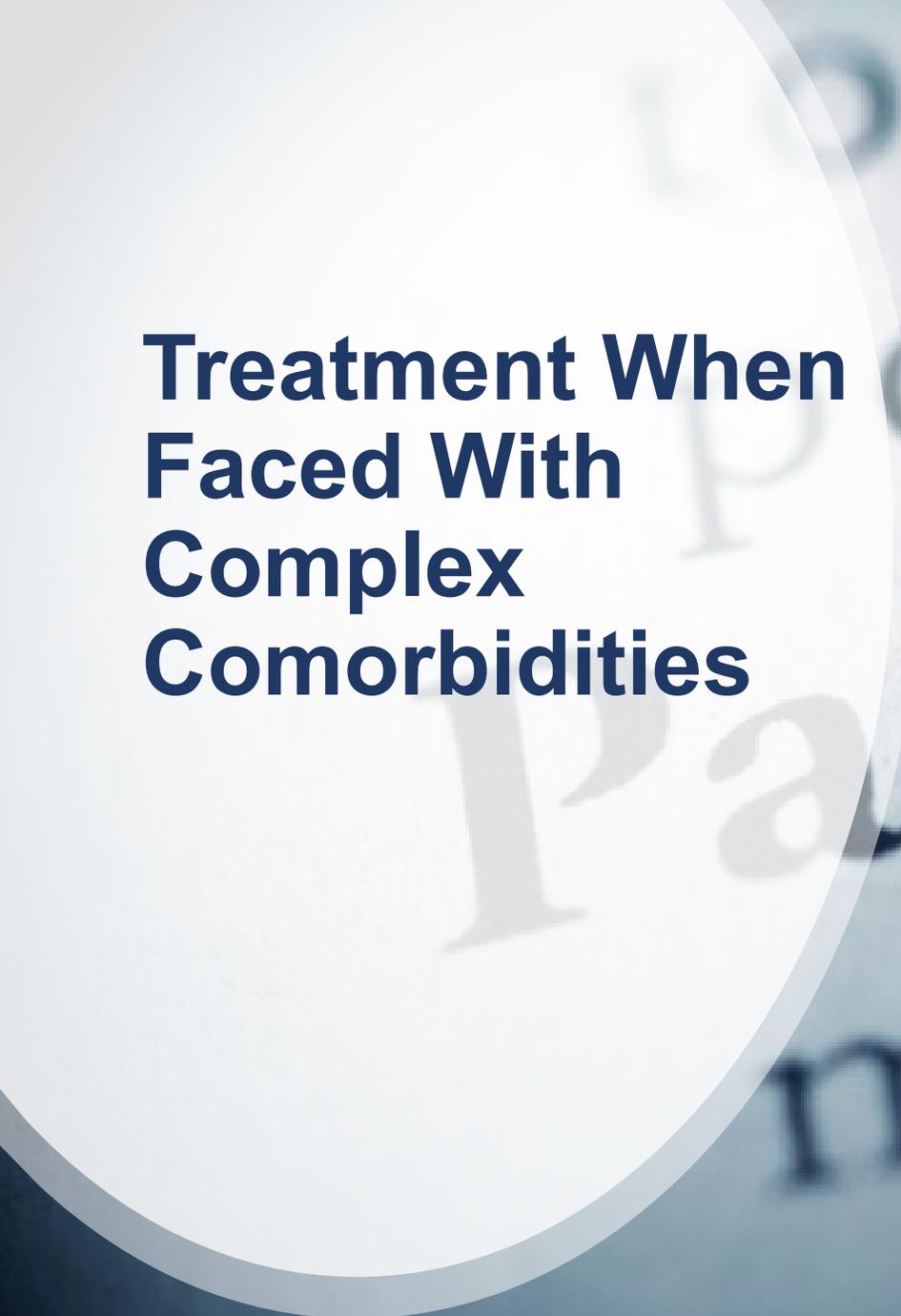
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- Oxycodone
- Hydrocodone
- Fentanyl
- Buprenorphine
- Tapentadol (Nucynta)
- Tramadol (Ultram)
- Oxymorphone
- Morphine
- Hydromorphone
- Methadone

**Most  
Stimulating**



**Most  
Sedating**



**Treatment When  
Faced With  
Complex  
Comorbidities**

# Pain Treatment with SUD Risk

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- Assess risk
- Contain risk
  - Ongoing assessment
    - UDS, CSRS, etc
  - Non-opioid tx
  - Identify and tx comorbidities
  - Low risk opioids
  - Multidisciplinary

# Initiation of Pain Therapy

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- Pain Assessment
- Risk Assessment
  - Psych, SUD, family hx
- UDS
- Review NC Controlled Substance Reporting System
- Informed Consent/ Treatment Agreement
- Patient education
- “Trial” of opioids
- Functional goals

# Step Treatment of Pain

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- Non-pharmacologic, physical
  - Massage, PT, splints, yoga, acupuncture
- Non-pharmacologic, psychological
  - Relaxation, biofeedback, hypnosis, coping skills, CBT

# Safer Opioids

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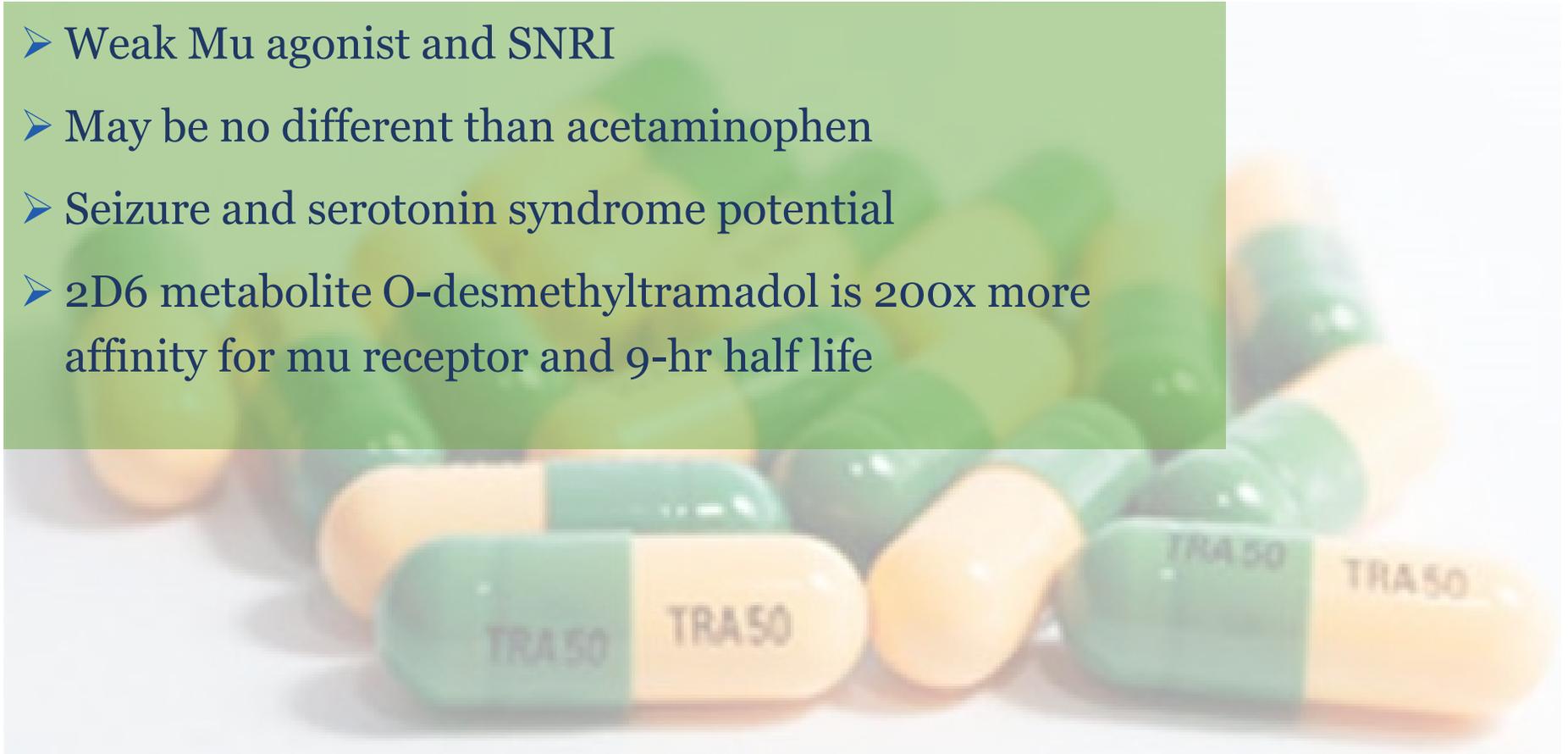
## ➤ Pain

- Tramadol (Ultram)
  - SNRI primary
  - Opioid minimal, in metabolite only
- Tapentadol (Nucynta)
  - NE and full agonist
  - 50-75mg = 10mg oxycodone ***clinically***
- Buprenorphine
  - Partial agonist, ceiling effect
  - Transdermal Patch (Butrans)
  - Buccal (Belbuca)

# Tramadol

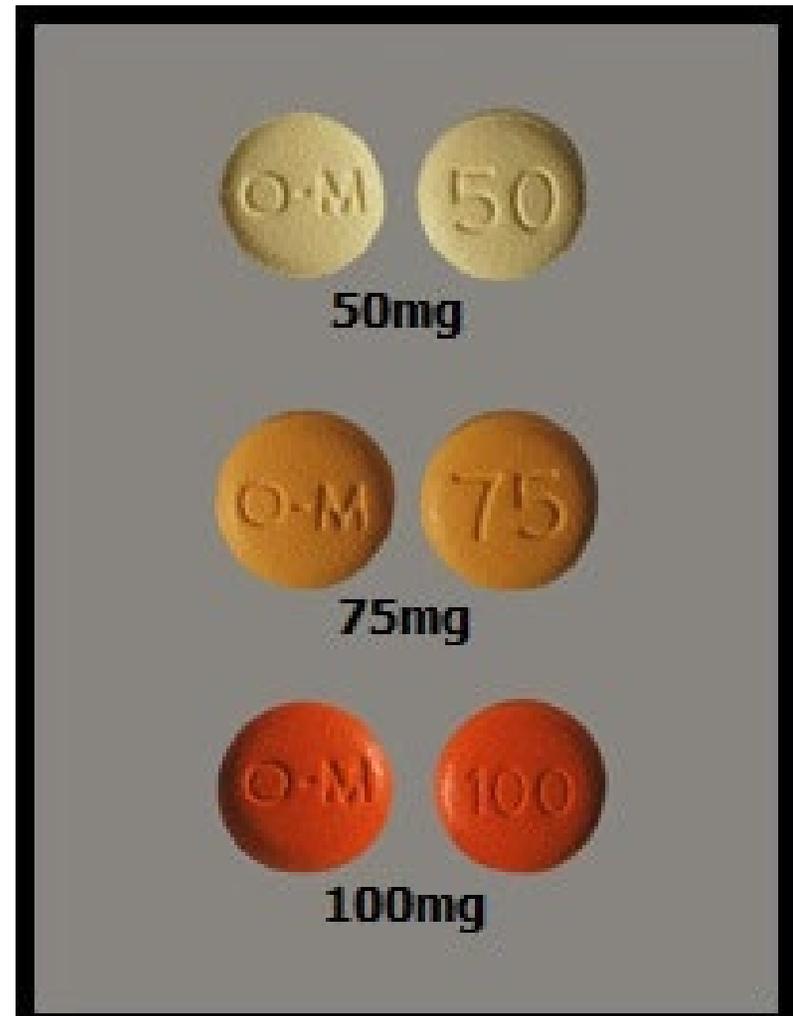
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- Weak Mu agonist and SNRI
- May be no different than acetaminophen
- Seizure and serotonin syndrome potential
- 2D6 metabolite O-desmethyltramadol is 200x more affinity for mu receptor and 9-hr half life



# Tapentadol

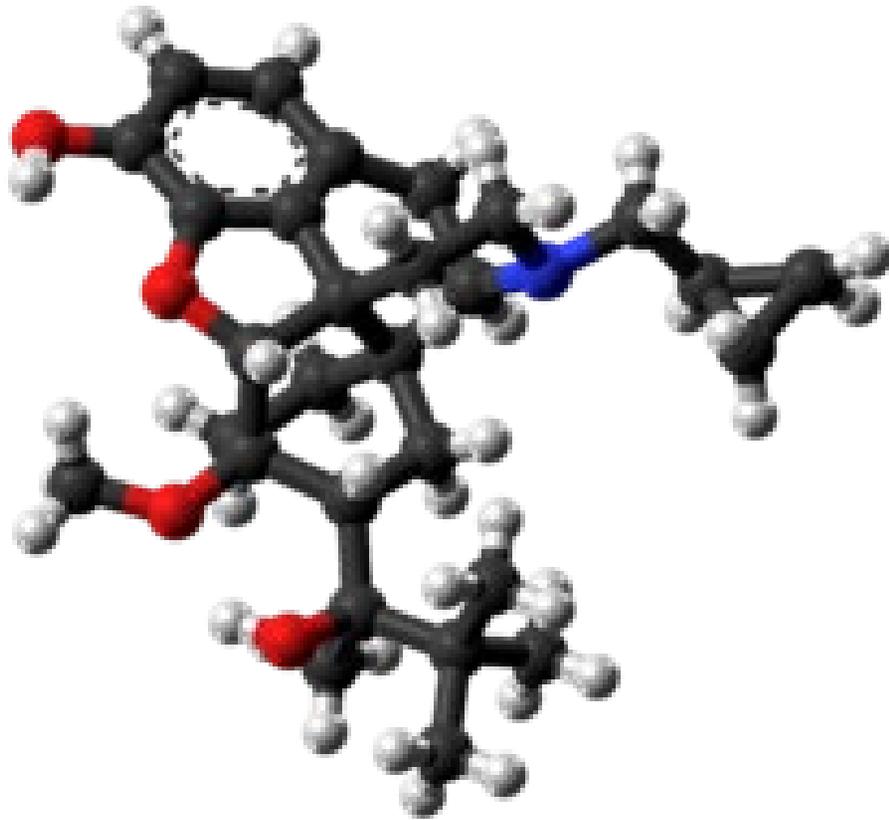
- Mu agonist, weak (50x less than MS)
- NE reuptake inhibitor
- 600mg max dose
- Half life of 4 hrs.
- Low addiction potential
- IR and ER preparations
- 50mg tapentadol = 10mg oxycodone, clinically



Dart RC Clinical Journal of Pain 2014

# Buprenorphine: FDA Approvals

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## ➤ Addiction

### ○ With Naloxone

- Bunavail
- Suboxone
- Zubsolv

### ○ Without Naloxone

- Subutex (least expensive)

## ➤ Pain

### ○ Butrans

### ○ Belbuca

# Benefits of Buprenorphine

## Reduced Risk Of

- Respiratory failure
- Constipation
- Renal failure
  - Stable blood levels
- Cognitive impact
- Immunosuppression
- Hormone suppression
- QTc
  - Less than methadone

## Benefits

- Pain management
  - 25/26 trials positive
- Neuropathic pain
- Antihyperalgesic
- Antidepressant

# Butrans

**Butrans**  
5 mcg/hour



45 x 45 mm

**Butrans**  
7.5 mcg/hour



45 x 58 mm

**Butrans**  
10 mcg/hour



45 x 68 mm

**Butrans**  
15 mcg/hour



59 x 72 mm

**Butrans**  
20 mcg/hour



72 x 72 mm

- Transdermal patch
- MCG doses of 5, 7.5, 10, 15, 20
- Starting dose:
  - 5 mcg if <30mg MEQ
  - 10mcg if 30-80 MEQ

# Belbuca

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- Buprenorphine buccal film
- MCG doses of 75, 150, 300, 450, 600, 750, 900
- For bid dosing



## Full Agonist Pain Therapy

Lowest dose

Short scripts

Increased frequency of visit

Risk assessment repeated

UDS/CSRS consistently

Social and SUD tx support

The background is a solid blue color. Scattered across it are several white question marks of varying sizes and orientations. At the bottom of the image, there are several white, fluffy cloud-like shapes. The word "Questions?" is centered in the middle of the image in a white, sans-serif font.

Questions?

## Case Study

48 y/o male, manager of Lowes Home Improvement for 15 years, still working. Injury of lumbar spine following motorcycle accident 6 years ago.

3 years of conservative tx for LBP and L leg pain, including PT, home exercises, TENS, NSAIDS with minimal impact.

Post fusion of L4/5 and L5/S1 3 years ago with improvement of lumbar and leg pain for 1 year, then slow escalation of pain again. In the last 6 months, noting more generalized muscle pain.

## Case Study, Symptoms

LBP is aching to sharp at 7-8/10, 4/10 at best with meds

L leg pain is electrical to burning, to knee and occasionally calf, 7/10 average with 4-5/10 with rest.

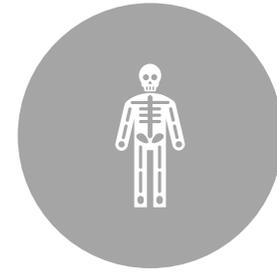
FUNCTIONALLY able to walk for 45 mins. and sit for 90 mins.

No bowel or bladder sx's but does have a sense of weakness or fatigue at end of 45 mins. ambulation.

## Case Study, Mood and SUD Hx



MOOD IS DEPRESSED IN LAST 1.5 YEARS. NO PREVIOUS HX. ENERGY IS LOW.



MOTHER WITH HX OF DEPRESSION, FATHER WITH ANXIETY AND ETOH. SISTER “BIPOLAR”, ETOH AND “PILLS”.



HE WAS DRINKING HEAVILY FROM 18 TO 25, SOBER WHEN MARRIED. MRJ FOR A FEW YEARS, THEN PARANOID. COCAINE “A COUPLE OF TIMES AND LIKED IT TOO MUCH” AND STOPPED IN EARLY 20’S.

## Case Study, Social

Married, 2 children, wife works, relationship strained due to pain.

Greatest concern is losing his job. Working 50 hrs per week, and supervisor not supportive. He is able to sit/stand as he needs.

What do you think his opioid risk level is?

**low, medium, high**

## Case Study, Medication

### Current meds

- Gabapentin 600mg tid
- Tramadol 50mg qid “not working”

### Past trials

- Pregabalin
- Zoloft
- NSAID’s “stupid”
- T-3’s “not strong enough”
- Oxycodone/APAP 10/325 qid “worked pretty well”

# Case Study, Medication



He requests oxycodone  
“nothing else worked as well,  
I could keep going even at  
work”.



What are next  
steps



What else do you  
want to know



Would you give  
him opioids

## Case Study, got opioids



Decided to try opioids, gave him Percocet #60 with script stating 1 every 6 hrs. PRN pain.



He calls 3 weeks later, out of medication for a week. He comes to the office reporting doing well until he ran out of medication.



Wife is concerned about him “taking pain pills”.

What do you want to know?  
Next steps?