The Opioid Crisis: Safe Prescribing & Pain Management

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Sacramento County Opioid Awareness Summit

September 12, 2018

Pain Management Experiences

- Pain Medicine since 1987
- Patients who “fall through the cracks”
- Multidisciplinary pain management
- Cancer Related Pain
- Pain Kills

Opioid Crisis: What We Have Learned

- OxyContin introduced 1995, a sentinel event.
- Prompted by several factors that led to an increase in opioid prescribing
  - A belief that addiction was rare
  - Assessment of pain "as the fifth vital sign" 1996
  - Aggressive marketing campaigns by Pharma
- Under treatment of pain is was so common. AB 487 – Mandatory 12 CME on pain.
- The sale of prescription opioids tripled between 1999 and 2011, paralleled by 4x increase in admissions for SUD treatment and 4x increase in OD deaths
- Misuse of Prescription Rx is a significant risk factor for heroin use
  - 80% of heroin users began with misuse of prescription Rx
  - 4% of those who misuse prescription Rx go on to initiate heroin use within 5 years.

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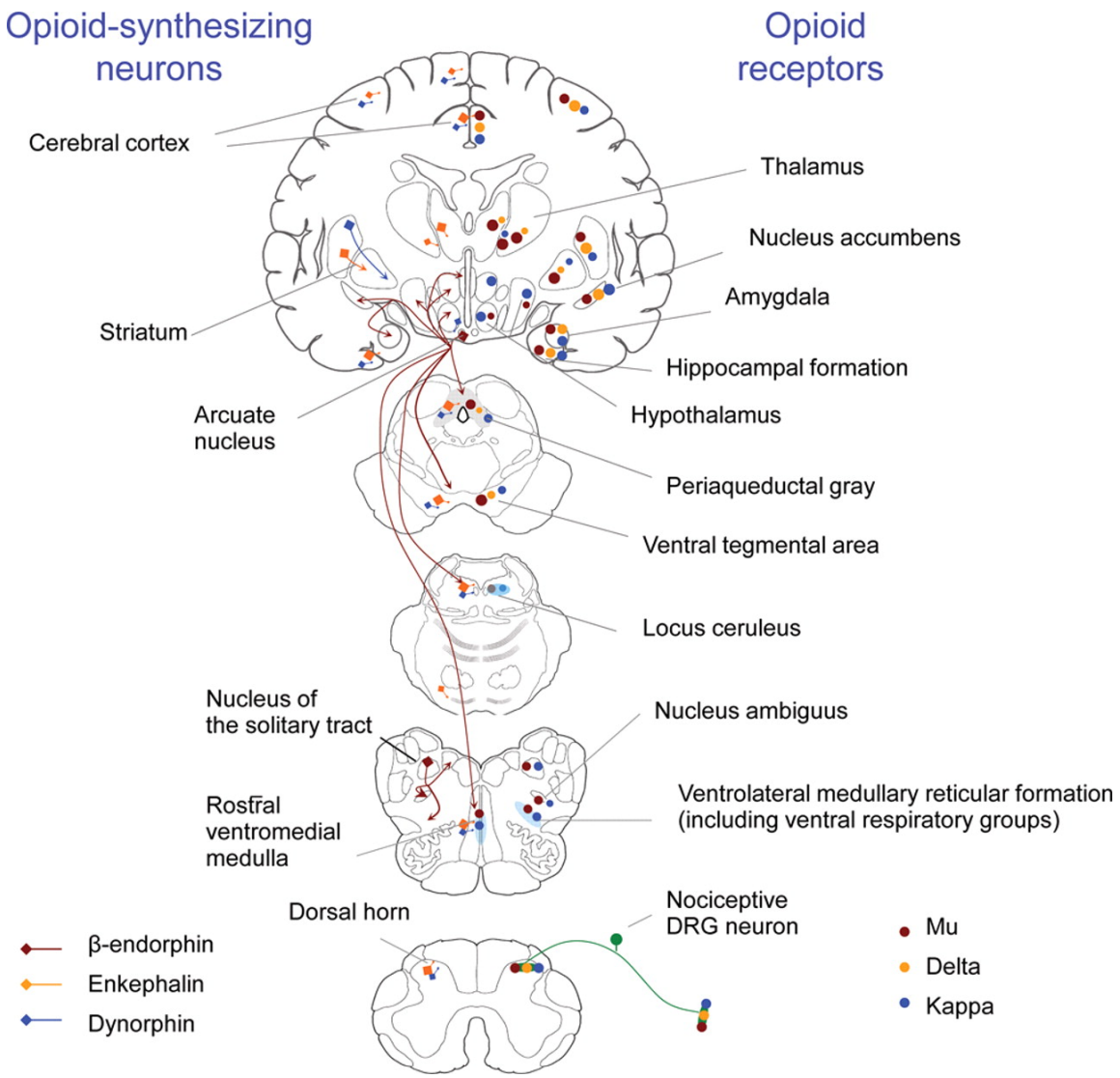
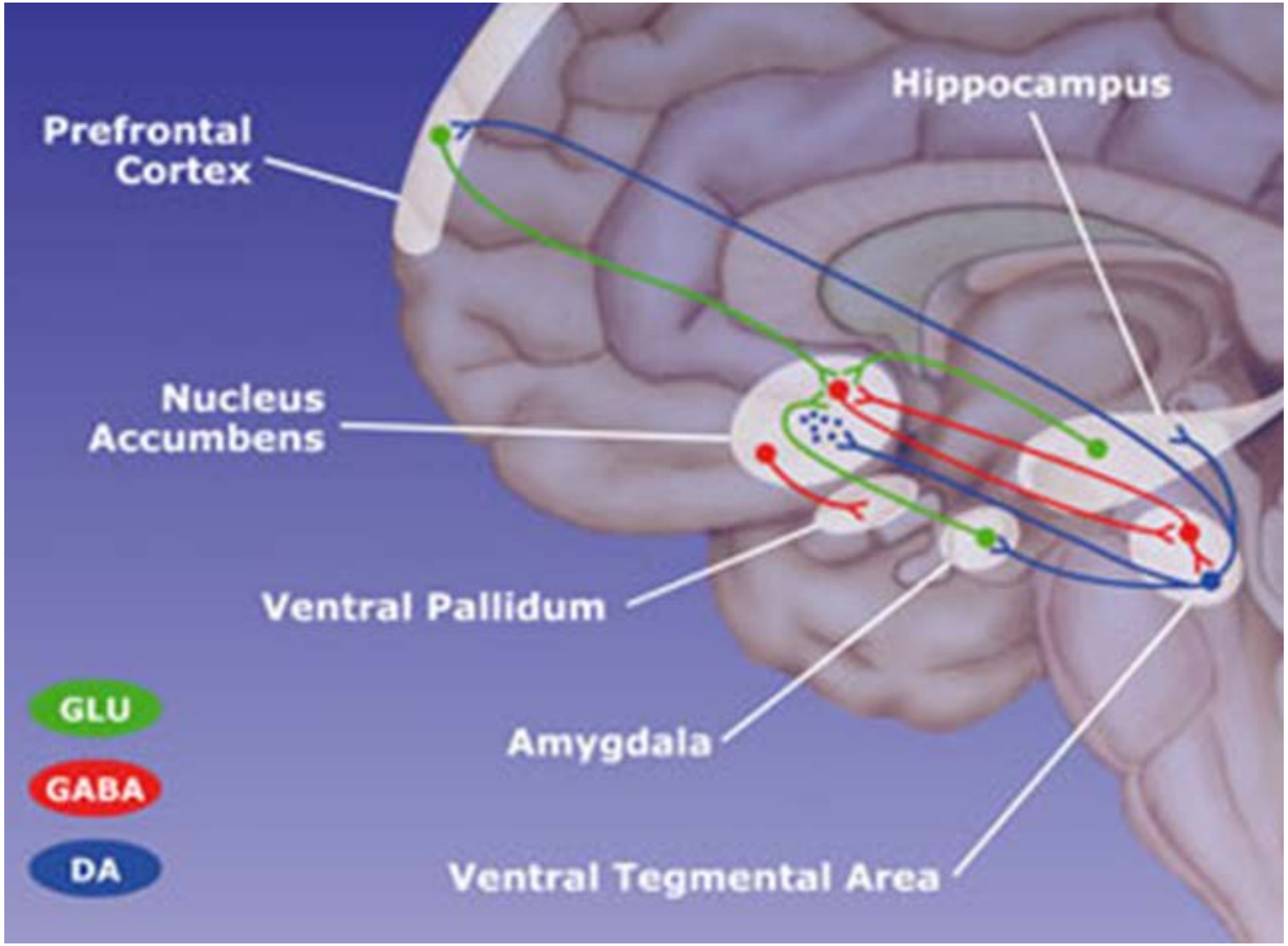
What are opioids?

- An opium-like compound that binds to one or more opioid receptors. Poppy pods used as early as 4000 B.C.
- Opioid receptors in the brain, spinal cord and nervous system
- They affect the intensity of pain-signal perception
- They affect brain areas that control emotion
- Affect reward centers of the brain causing euphoria.
- Have been used for centuries to treat pain, cough, and diarrhea.
- Can cause a worsening of pain when used long term (hyperalgesia)

What are Opioids? The Endogenous Opioid System

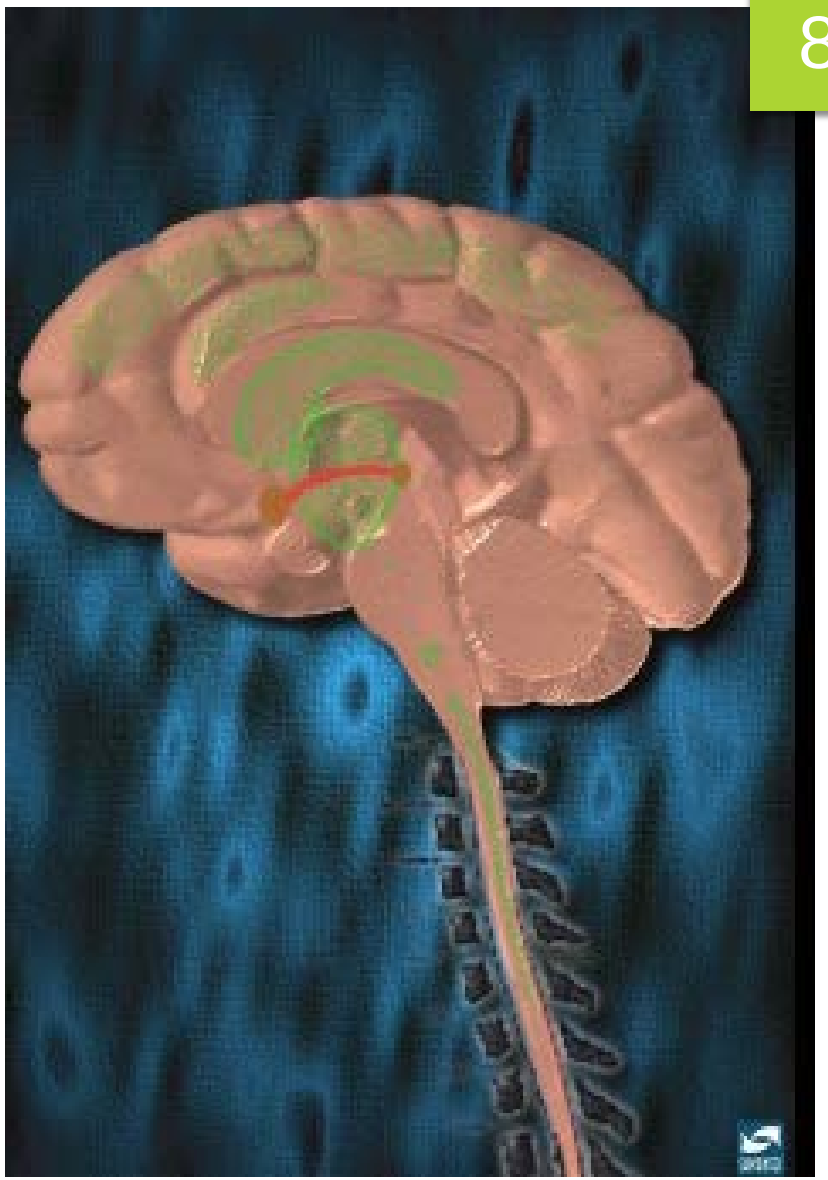


What are Opioids? The Reward Circuit



Action of Opiate Agonist

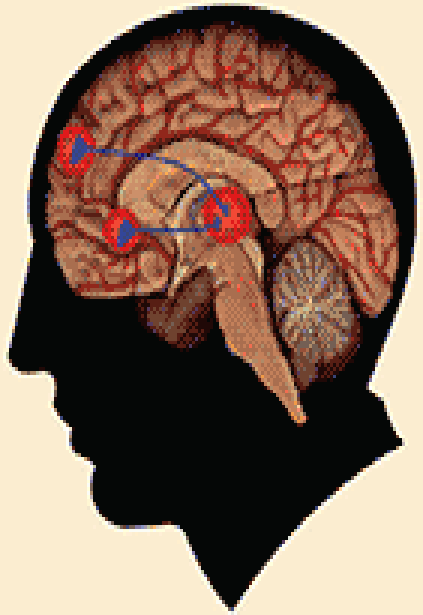
- Binding to endorphin receptors in pain pathway →analgesia
- Binding to receptors in reward pathway → dopamine released → person feels good.



Dopamine

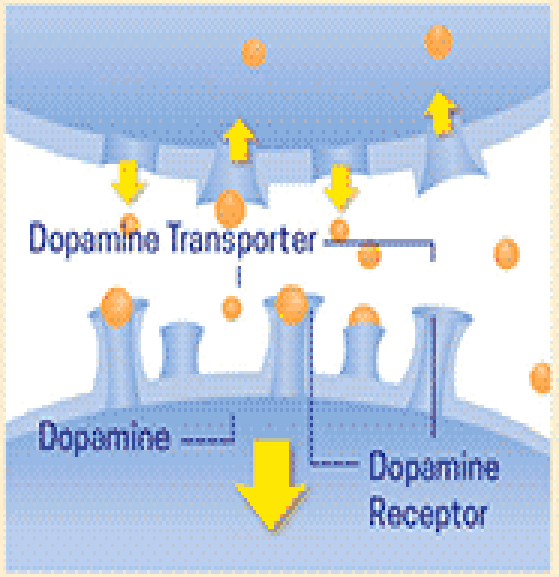
Some drugs target the brain's pleasure center

Brain reward (dopamine pathways)

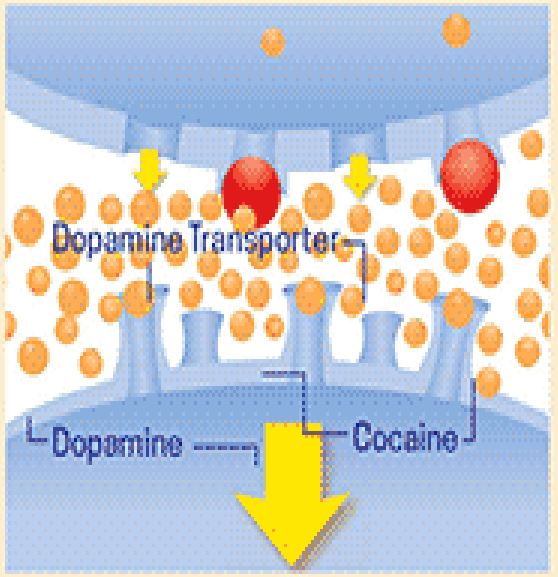


These brain circuits are important for natural rewards such as food, music, and sex.

How drugs can increase dopamine



While eating food



While using cocaine

Typically, dopamine increases in response to natural rewards such as food. When cocaine is taken, dopamine increases are exaggerated, and communication is denied.

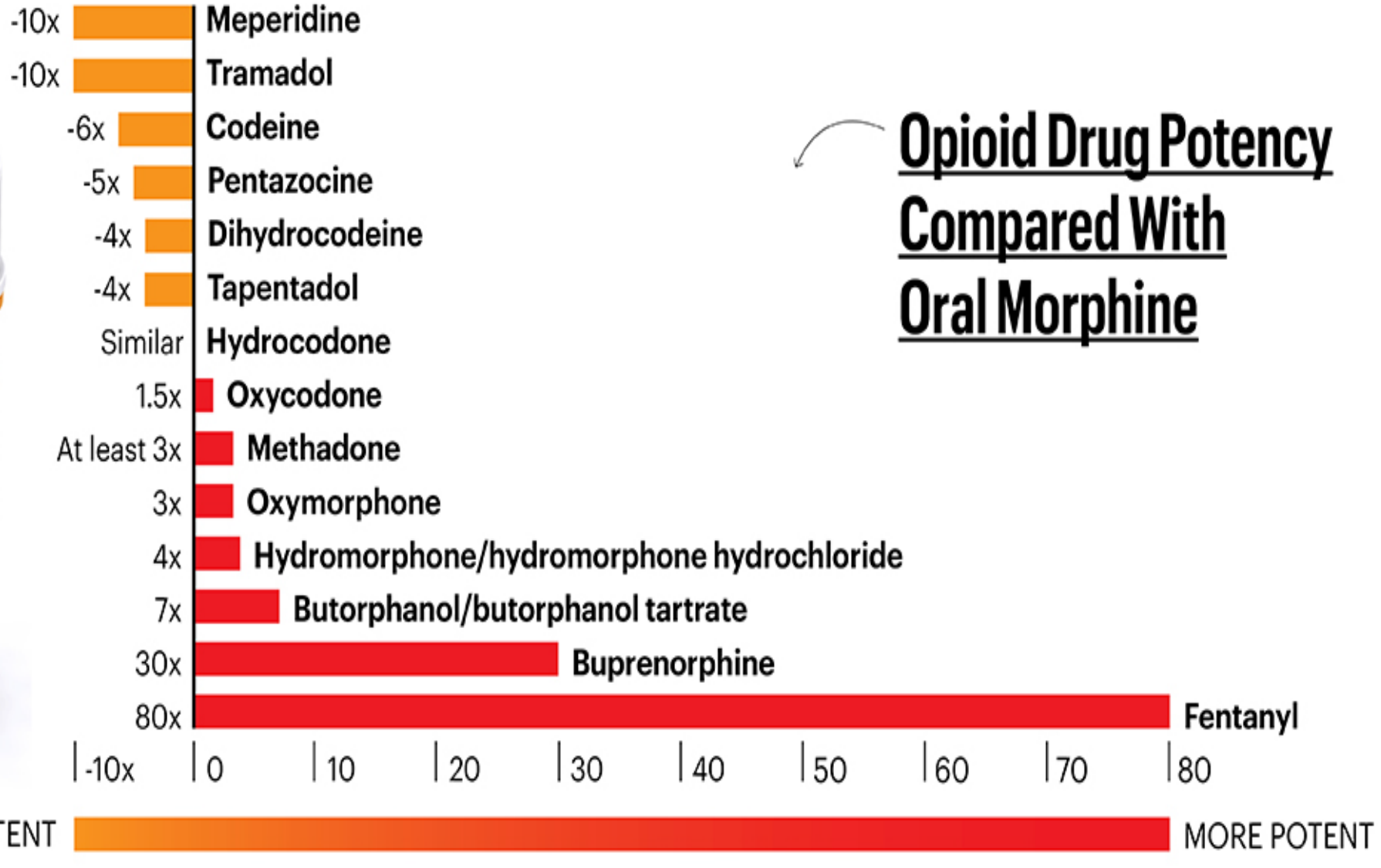
Opioid Types

Opiates	Semi - Synthetic	Synthetic
• Opium • Morphine • Codeine	• Heroin • Hydrocodone • Hydromorphone • Oxycodone • Oxymorphone • Buprenorphine	• Fentanyl • Methadone • Tramadol

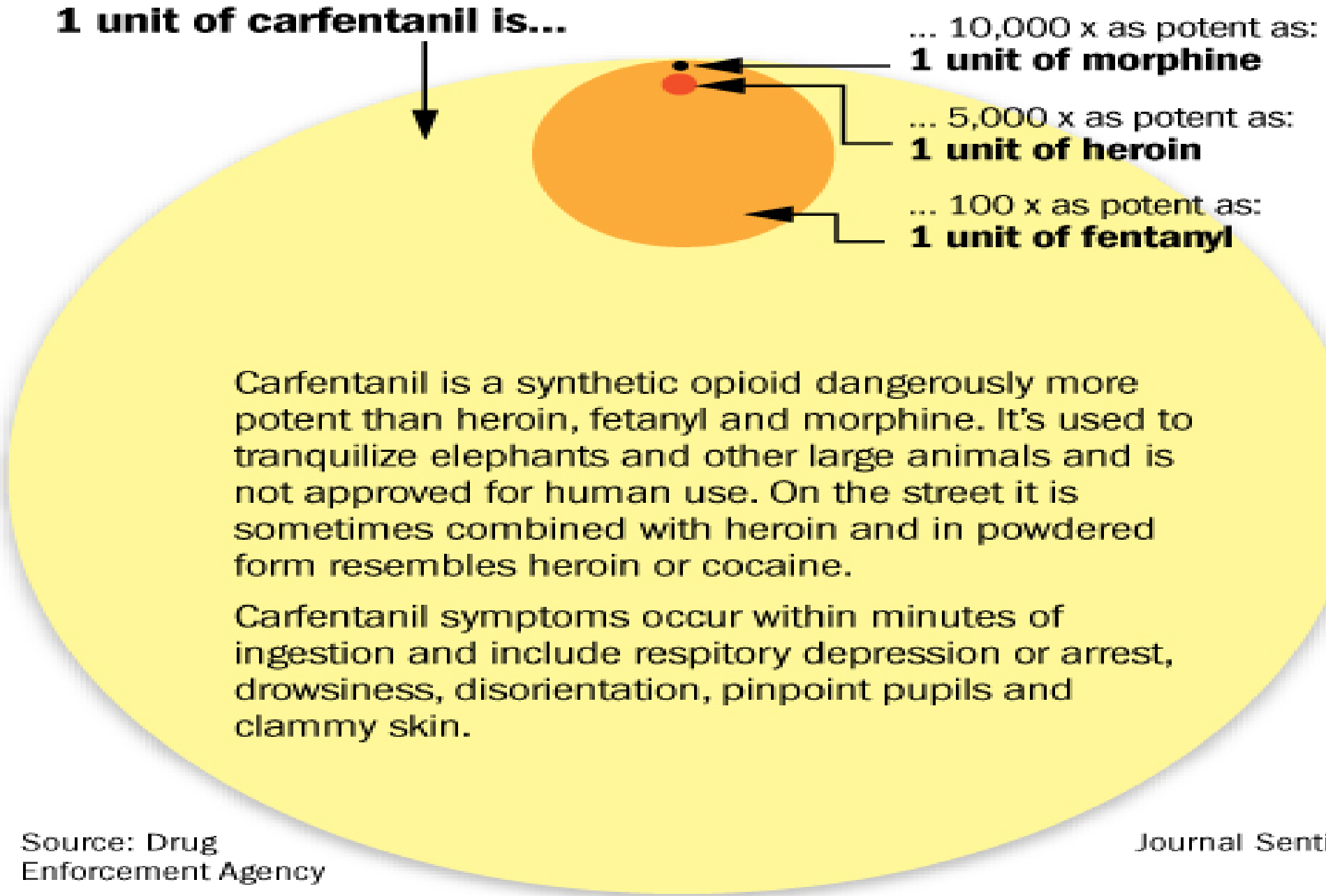
THE DRUGS

THE FDA HAS APPROVED 18 OPIOID DRUGS

The generic names are listed here. Drugs primarily used in surgery (such as alfentanil and remifentanil) were not included.



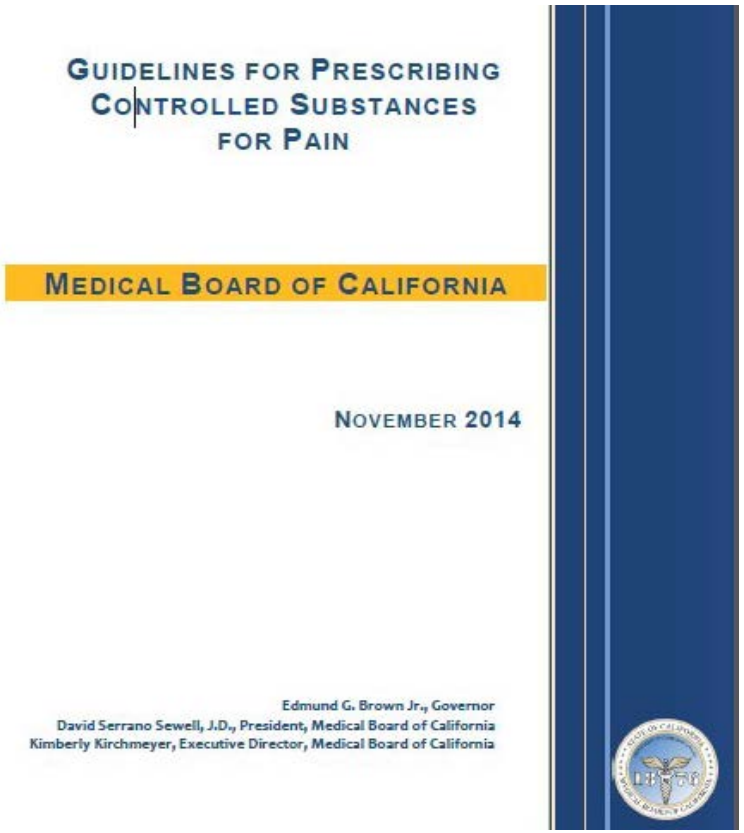
Carfentanil's relative potency compared



Source: Drug Enforcement Agency

Journal Sentinel

Guidelines for Prescribing Controlled Substances for Pain



Summary of Key Points

All biologically active drugs pose risks if they are not used appropriately.

Opioid analgesics are widely accepted as appropriate and effective for alleviating moderate-to-severe acute pain, pain associated with cancer and persistent end-of-life pain.

Opioids may be appropriate for certain patients with chronic pain, provided they are prescribed cautiously and in a manner consistent with approved clinical practice guidelines.

Opioids should be used for chronic pain only when safer options have been deemed ineffective and continued treatment should be based on maintenance of clinical and functional goals.

Summary of Key Points

Informed consent for opioid use for chronic pain includes patient knowledge of and acceptance of the following:	The potential benefits and/or safety of opioids are not proven by high-quality evidence, such as randomized controlled clinical trials;
	Risks, including risk of abuse and overdose, tend to increase with dose;
	Addiction, abuse, clinical coping and other problems associated with opioids are not uncommon;
	Some patients have difficulty discontinuing opioid therapy;
	Taking other substances/drugs with opioids (e.g. alcohol) or having certain conditions (e.g. sleep apnea, mental illness) can increase the risk and cause serious adverse effects; and
	Opioids should be used only as prescribed, should be stored securely and when a course of treatment is altered, discontinued or stopped, any unused opioids should be disposed of properly.

Implementation in California from 2014-2016:

Demonstrated:

1. A 17% decrease in opioid prescriptions
2. A 14% increasing buprenorphine prescriptions
3. One of only 5 states with multilayered decrease in prescription opioid overdoses
4. California now tied for the lowest per capita opioid prescription rate in the country

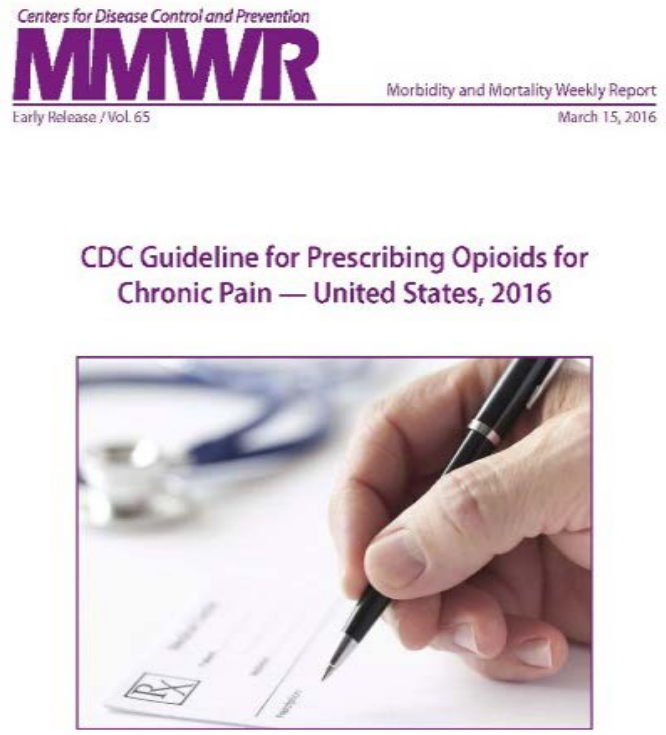
CDC Guidelines for Prescribing Opioids for Chronic Pain – Published March 15, 2016

Improve communication between clinicians and patients about the risks and benefits of opioid therapy for chronic pain.

Improve patient outcomes such as reduced pain and improved function.

Improve the safety and effectiveness of pain treatment.

Reduce the risks associated with long-term opioid therapy, including opioid use disorder, overuse, and other adverse events related to opioid use.



Pain and Addiction
American Society of Addiction Medicine 2018

Prevalence of Opioid use Disorder is estimated to be 20-25% in long term use of opioids to treat chronic pain.

Prevalence indicates the proportion of a population that is diagnosed at a specified point in time.

Heroin abuse increase by 63% from 2002 through 2013. Deaths increased by 286% from 0.7 to 2.7 per 100,000 people

Rate of heroin initiation is 19 times higher if used Rx nonmedically.

80% of heroin users begin with misuse of prescription opioids.

Oxycodone is particularly popular for non medical use

Fentanyl and other Synthetic Opioids represent an escalation of the opioid epidemic.

Fentanyl is 80 times more potent that morphine in vivo.

Illicit Fentanyl is largely responsible for OD deaths from 3,105 in 2013 to 9,580 in 2015

Biopsychosocial Model of Health

Gender
Physical illness
Disability
Genetic vulnerability
Immune function
Neurochemistry
Stress reactivity
Medication effects

Learning/memory
Attitudes/beliefs
Personality
Behaviours
Emotions
Coping skills
Past trauma

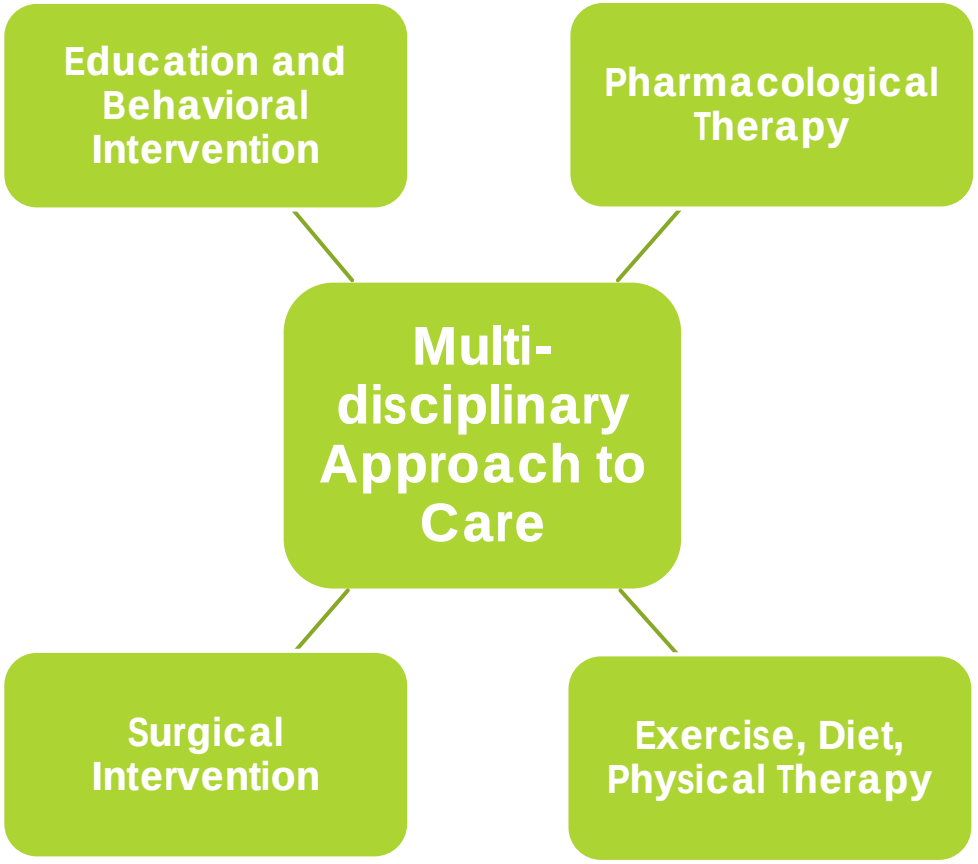
Social supports
Family background
Cultural traditions
Social/economic status
Education

Multidisciplinary Approach to Pain Management

Multidisciplinary Approach to Pain Management

Living with pain can impact people's lives:	Decreased activity levels
	Disturbed sleep,
	Loss of appetite
	Psychological and emotional strain
	Physical exhaustion
	Loss of joy of living.

Each patient is unique and benefits from an individual treatment plan



Reflections

The opioid crisis is real and must be addressed

What about the 75-80% of patients who DO NOT develop an opioid use disorder?

Those who suffer from chronic pain that has not responded to other methods or modalities

Guiding Principles

Physician's professional obligation and ethical duty is to provide appropriate medical care and treatment for the patient based on the physician's training, experience and clinical judgement.

Recommend well-balanced approach to opioid prescribing and treatment that considers the unique needs of the patient.

With education and implementation of treatment guidelines, the current epidemic of opioid use and abuse, in so far as physician prescribing practices are involved, will be radically reduced.

Thank You
Questions?