



# Practical Pain Management

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# Overview

- Types of Pain
- Physical Examination of Pain
- Pharmacologic Approach in Pain Management
- Non- pharmacologic Approach in Pain Management
- Long Term Opiate Usage
- Opiate Abuse

# In the News...

HEALTH

232 COMMENTS

## *Prescription Painkillers Seen as a Gateway to Heroin*

By BENEDICT CAREY FEB. 10, 2014

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The life of a heroin addict is not the same as it was 20 years ago, and the biggest reason is what some doctors call “heroin lite”: prescription opiates. These medications are more available than ever, and reliably whet an appetite that, once formed, never entirely fades.

Details are still emerging about the last days of [Philip Seymour Hoffman](#), the [actor who died last week at 46](#) of an [apparent heroin overdose](#). Yet Mr. Hoffman’s case, despite its uncertainties, highlights some new truths about addiction and several long-known risks for overdose.

The actor, who quit heroin more than 20 years ago, reportedly struggled to break a prescription

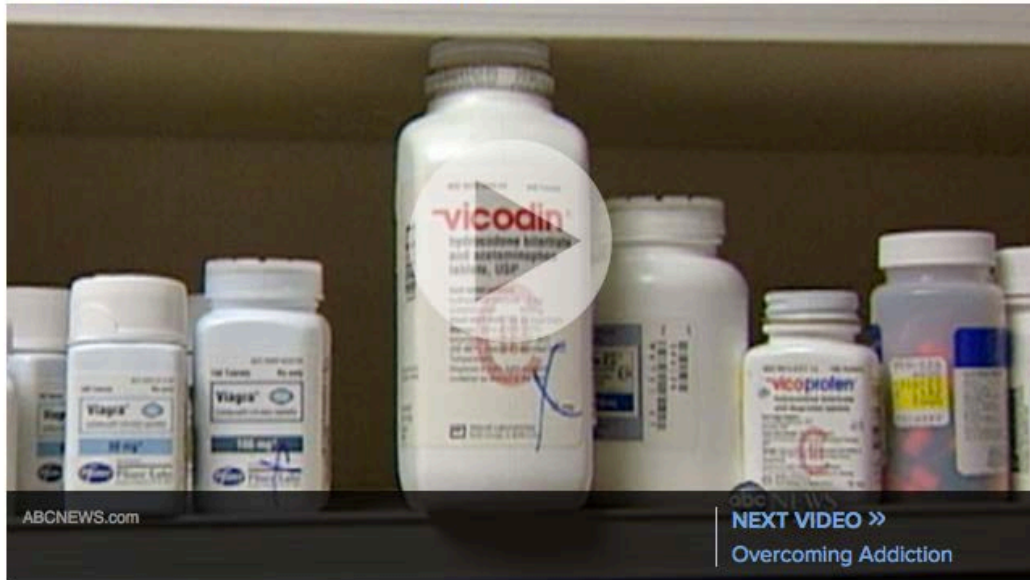


# In the News...

## Prescription Painkiller Use at Record High for Americans

April 20, 2011

By JIM AVILA and MICHAEL MURRAY via **WORLD NEWS**



ABCNEWS.com

NEXT VIDEO >>

Overcoming Addiction

# In the News...

## F.D.A. Urging a Tighter Rein on Painkillers



Toby Talbot/Associated Press

Hydrocone-containing drugs, like these at a Vermont pharmacy, were prescribed for an estimated 47 million patients in 2011.

By **BARRY MEIER**

Published: October 24, 2013 |  931 Comments

# National Drug Control Strategy

- The CDC has characterized prescription drug overdose as a public health epidemic
- On average, more than 100 Americans die from drug overdoses every day
- In 2010, more than 38,300 Americans died from drug overdose, with prescription drugs involved in a significant proportion of these deaths.
- In 2010, 6600 women died of prescription painkiller deaths, four times more than that of cocaine and heroin combined

# Pain. Good or Evil?



# Types of Pain

- Physiologic
- Neuropathic Pain
- Nociceptive/ Inflammatory Pain
- Mixed



# Types of Pain: Physiologic Pain

- Definition: Rapidly perceived non-traumatic discomfort, of short duration, alerting the individual, generally after brief exposure to noxious stimuli
- Example: Pain after touching a hot object

# Types of Pain: Neuropathic

- Definition: resulting from irritation or damage to the nerves
- Characterized by: Burning, Tingling, Numbness, Heat, Cold water, Shooting, Itching, “Funny”

# Types of Pain: Nociceptive/ Inflammatory

- Definition: caused by stimuli that threaten or provoke tissue damage
- Involves peripheral pain and release of inflammatory mediators
- Characterized by: Aching, Throbbing, Sharp

# Types of Pain: Mixed

- Combined somatic and nervous system injury
- Example: Status post back surgery

# Physical Examination of Pain

- Incredibly Subjective
- Neurologic
- Musculoskeletal
- Peripheral Vascular
- Neuropsychiatric

○ *Although pain may not be psychological*

*in origin, how we respond to it always is.*

# Patient's Experience

- Study done in a VA contrasted tensions between patients and PCPs re: chronic pain
- Affirm that their pain is a priority
- Channel your inner RN- listening provides important therapeutic value

# Pharmacological Approach

- Non- opioid

- Opioid



# Pharmacological Approach: Non-opioids

- Acetaminophen: new max daily dosage of 3000mg/day

- NSAIDs: (Ibuprofen, Diclofenac, Celebrex, Meloxicam)

  - Ensure care for GI side effects

  - Ensure care for cardiac status

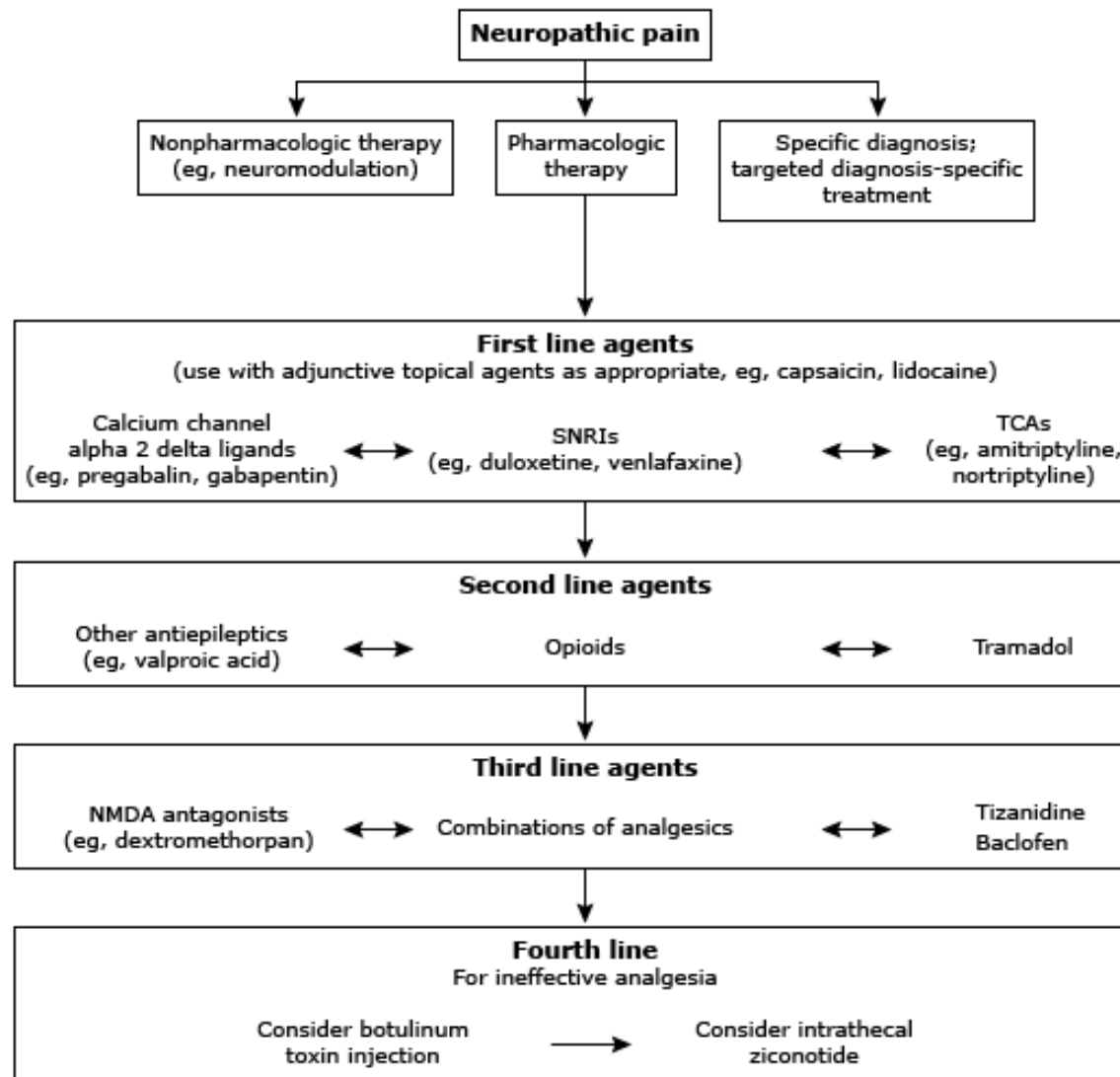
- Aspirin:

  - Ensure care for GI side effects and impaired bleeding time

# Pharmacological Approach: Neuropathic Pain Management

- Tricyclic Antidepressants: (Amitriptyline, Nortriptyline)
- Other antidepressants: (Cymbalta, Effexor, Pristiq, Savella)
- Calcium channel alpha 2- delta ligands: (Gabapentin (IR and ER) and Lyrica)
- Anticonvulsants: (Gabapentin, Tegretol, Lamictal)
- Topical therapy: Lidocaine (Lidoderm patches or topical Lidocaine jelly)
- *Less than half of pts with neuropathic pain will respond to a single agent (while most studies reflect monotherapy)*

## Neuropathic pain: Pharmacologic approach



SNRI: serotonin-norepinephrine reuptake inhibitor; TCA: tricyclic antidepressant; NMDA: N-methyl-D-aspartate.

# Pharmacological Approach: Non-Opioids

- Tramadol: (Ultram)
  - Has some activity at mu opioid receptors
  - Inhibits reuptake of serotonin and norepinephrine
  - Effective for neuropathic pain and fibromyalgia
  - Not more effective than NSAIDs or nortriptyline for other pain
  - Lowers seizure threshold
  - Risk for suicide
  - ER formulation

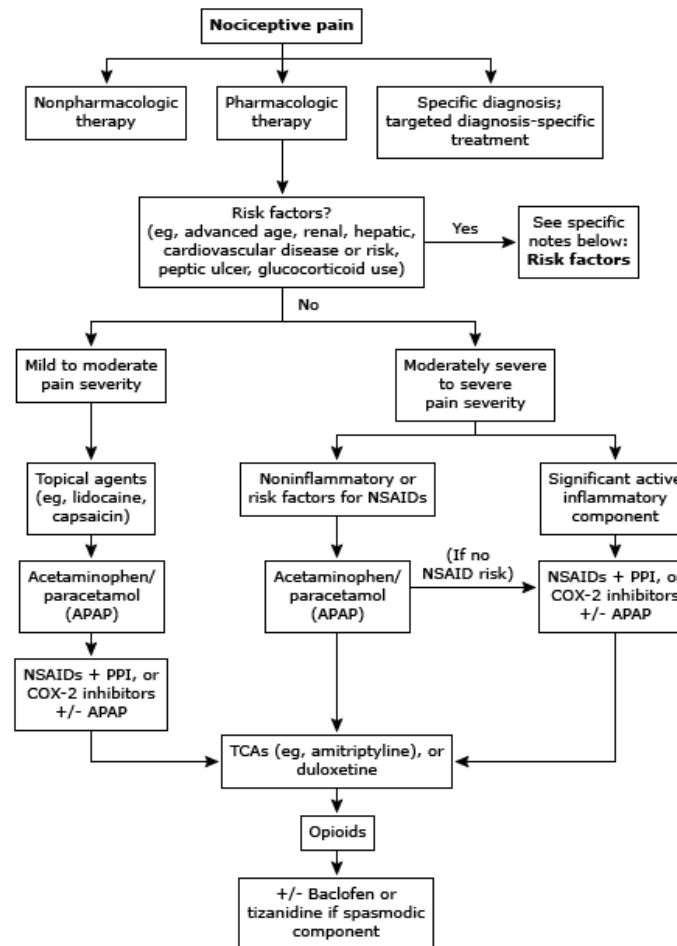
# Pharmacological Approach: Non-opioids

- Tapentadol: (Nucynta)
  - Mu receptor agonist
  - Norepinephrine reuptake inhibitor
  - Schedule II controlled substance in U.S.
  - IR and ER formulations

# Pharmacological Approach: Non-opioids

- Muscle relaxants: (Flexeril, Tizanidine, Robaxin, Skelaxin, Soma)- be watchful for CNS depression
- Benzodiazepines: (Valium, Klonopin, Xanax, Ativan)- high addiction potential, does work as excellent muscle relaxant

## Nociceptive pain: Pharmacologic approach



### Risk factors:

- Chronic kidney disease, advanced age - avoid NSAIDs and COX-2 inhibitors
- Peptic ulcer disease, glucocorticoid use - avoid NSAIDs
- Hepatic disease - avoid NSAIDs, COX-2 inhibitors, and acetaminophen (APAP); use TCAs or duloxetine first line
- Cardiovascular disease or risk - use lowest effective dose of NSAIDs; in patients who require treatment, suggest naproxen

NSAID: nonsteroidal anti-inflammatory drug; COX-2: cyclooxygenase 2 inhibitor; APAP: acetaminophen/paracetamol; TCA: tricyclic antidepressant; PPI: proton pump inhibitor.

# Pharmacological Approach: Opioids

- Mechanisms of action: mu receptors
- Short acting: hydrocodone, oxycodone, morphine, hydromorphone (Dilaudid), oxymorphone (Opana),
- Long acting: MSContin, OxyContin, Opana ER, Exalgo, Fentanyl, Buprenorphine



# Pharmacological Approach

- Methadone “Not just for heroin addicts”
  - Acts as mu opioid agonist and NMDA antagonist
  - As an NMDA antagonist, reduces effect of opioids on neural opioid receptors
  - Use for neuropathic pain as well as nociceptive pain
  - Long half life: 18-24 hrs
  - Eval cardiac status: Prolonged QT interval

# Pharmacological Approach

- Buprenorphine (Butrans)
- 7 day patch
- Low dose available, 5-20mcg
- Long acting = less abuse and less side effects

# Pharmacological Approach: Opioids

- Side Effects: Nausea, Vomiting, Constipation, Itching, Reduced Libido, Confusion, Edema, Respiratory Depression
  - Most side effects decrease with long term use (aside from constipation)
- True Opiate Allergy: Rash, Hives, Bronchospasm, Severe hypotension, Angioedema

# Pharmacological Approach: Opioids

- Constant pain should be treated with scheduled meds
- Choose 2 drugs from different classes (or 1 long acting and 1 short acting)
- Don't start long acting opioids on opioid naïve pts
- Breakthrough pain? Short acting (10% of daily dose)
- Titrate up for inadequate pain control (25-50% for mild- mod pain/ 50-100% for mod- severe pain)

# Non- pharmacological Approach

- PT
- TENS
- Epidural Steroid Injections
- Spinal Cord Stimulator (SCS)
- Botox
- Surgery

# Cancer Pain

- The rate of under- treatment of cancer pain may be well over 40% (the odds of under- treatment are twice as high for minority patients)
- Causes of under- treatment:
  1. Clinician attitudes towards pain management
  2. Clinician inadequate skills or knowledge
  3. Patient under- reporting
  4. Limited resources (limited specialists or finances)

# The Difference...

- Physical Dependence: the rapid discontinuation of opioid following prolonged administration, usually one month or longer, will result in withdrawal sx such as dysphoria, anxiety, and labile mood as well as physical findings such as flu like sx (N/V/D), hypertension, tachycardia and sweating

# The Difference...

- Tolerance: pharmacological effect present when increasing amounts of opioid are required to produce an equivalent level of efficacy

- Occurs at different rates



# The Difference...

- Addiction: form of psychological dependence and refers to the extreme behavior patterns that are associated with procuring and consuming the drug

- Considered a psychiatric disorder

“Never treat an addict like an addict.”

# Opiate Abuse: Assessment

- The Three Questions:
  - 1. Personal history of drug/ ETOH abuse?
  - 2. Family history of drug/ ETOH abuse?
  - 3. Patient with a major psych disorder?
  
- Drug Seeking Behavior

# Opiate Abuse: Monitoring

- *CURES* (Controlled Substance Utilization Review and Evaluation System)- CA Dept of Justice prescription drug monitoring program relaying all reported types and quantities of controlled substances filled by each patient as well as by what pharmacy and by which provider

Site: <https://pmp.doj.ca.gov/pdmp/index.do>

Registration:

[https://pmp.doj.ca.gov/pmpreg/RegistrationType\\_input.action](https://pmp.doj.ca.gov/pmpreg/RegistrationType_input.action)

# Opiate Abuse: Management

- Small quantities of meds
- Frequent appts
- Long acting meds
- Meds with lower abuse potential
- Med management agreement
- Urine drug screening

# Opiate Abuse: Diversion

- Diversion: distribution of a drug into the illicit marketplace
- “Physicians are required to stop prescribing when there is a strong likelihood that diversion of prescribed drugs is occurring” unless... “appropriate medical actions are being taken to stop the behavior, regain control over the prescribing, and manage the medical and psychiatric condition of the patient.”
- Best in these instances to refer to a pain specialist

# Opiate Abuse: When to Refer

- When long term pain management is expected- treat it as you would any other specialty
- When a CURES comes back “ugly”
- When you suspect narcotic abuse/ diversion
- When pain is uncontrolled on current treatment

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