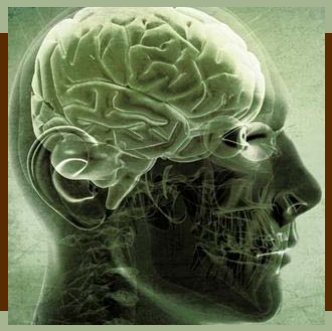
Ken Roy, MD, FASAM

The Opioid Epidemic and Addiction Involving the Use of Opioids



Addiction Recovery Resources, Inc.

Tulane & LSU Department of Psychiatry

www.arrno.com
kenroymd@cox.net

CDC Guidelines

- Nonpharmacologic therapy and nonopioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with nonpharmacologic therapy and nonopioid pharmacologic therapy, as appropriate.

- Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how opioid therapy will be discontinued if benefits do not outweigh risks. Clinicians should continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety.

CDC Guidelines

- Before starting and periodically during opioid therapy, clinicians should discuss with patients known risks and realistic benefits of opioid therapy and patient and clinician responsibilities for managing therapy.

- When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.

CDC Guidelines

- When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day. Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.

CDC Guidelines

- Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or of dose escalation. Clinicians should evaluate benefits and harms of continued therapy with patients every 3 months or more frequently. If benefits do not outweigh harms of continued opioid therapy, clinicians should optimize other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.
- Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present.

CDC Guidelines

- Clinicians should review the patient's history of controlled substance prescriptions using state prescription drug monitoring program (PDMP) data to determine whether the patient is receiving opioid dosages or dangerous combinations that put him or her at high risk for overdose. Clinicians should review PDMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.

- When prescribing opioids for chronic pain, clinicians should use urine drug testing before starting opioid therapy and consider urine drug testing at least annually to assess for prescribed medications as well as other controlled prescription drugs and illicit drugs.

CDC Guidelines

- Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.

- Clinicians should offer or arrange evidence-based treatment (usually medication assisted treatment with buprenorphine or methadone in combination with behavioral therapies) for patients with opioid use disorder.

Clinical Reminders

- Opioids are not first-line or routine therapy for chronic pain
- Establish and measure goals for pain and function
- Discuss benefits and risks and availability of nonopioid therapies with patient
- Use immediate-release opioids when starting
- Start low and go slow
- When opioids are needed for acute pain, prescribe no more than needed
- Do not prescribe ER/LA opioids for acute pain
- Follow-up and re-evaluate risk of harm; reduce dose or taper and discontinue if needed

Topics

- Two Timelines
  - The excessive prescription of opioids
  - The evolution of the availability of heroin
- The Disease of Addiction
  - Definition of addiction
  - How addiction differs in the case of opioids
  - What that means about treatment

The Opioid Prescribing Epidemic

- 1804 - Morphine produced from opium
- 1839 - First opium war – British take Hong Kong
- 1853 – Hypodermic syringe invented
  - Inventor's wife is first human to die of injected opiate overdose
- 1898 – Bayer chemist invents diacetylmorphine (heroin)
- 1914 – Congress passes Harrison Narcotics Act
- 1951 - Arthur Sackler revolutionizes drug advertising with Terramycin
- 1952 - Arthur, Raymond and Mortimer Sackler buy Purdue Fredrick
- 1960 – Arthur Sackler's campaign made Valium the 1st $100 million drug

The Opioid Prescribing Epidemic

- 1980 – *NEJM* publishes Porter & Jick
  - One paragraph based on database at Boston U School of Medicine
- 1984 - Purdue releases MS Contin
- 1986 - Foley & Portnoy publish in *Pain* opening debate about opiates in chronic pain
- 1996 – Purdue releases OxyContin and markets it with lessons learned from Valium marketing campaign
- 1996 – President of American Pain Society urges treating pain as a vital sign
- 1996 – Dr. David Proctor's clinic in South Shore, KY becomes first pill mill

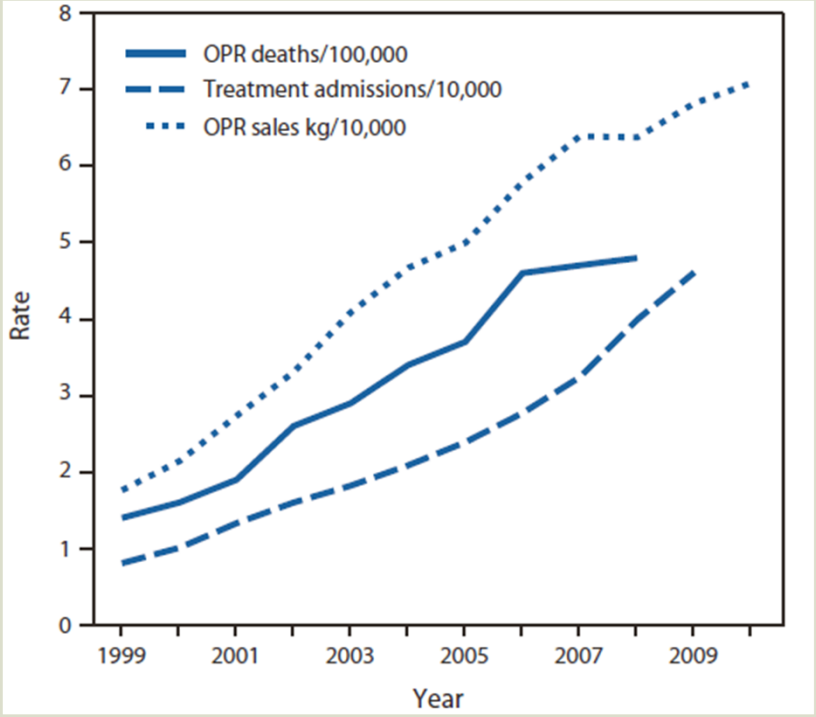
The Opioid Prescribing Epidemic

- 1998-99 – VA & JCAHO adopt the idea of pain as the 5th vital sign
- 2000s – Pill mills proliferate – Portsmouth, OH has more than any town
- 2001 - Injured workers in Washington State start dying of opiate overdose
- 2002 – David Proctor pleads guilty to drug trafficking ->11 years
- 2004 – Franklin & Mai publish findings on deaths due to painkillers
- 2007 – Purdue and three executives guilty of false branding and fined $634M
- 2008 – Drug overdoses surpass MVA deaths as cause of accidental death
- 2011 – Ohio passes HB 93 regulating pain clinics
- 2014 – Philip Seymour Hoffman dies focusing widespread attention
- 2017 – CDC recommendations

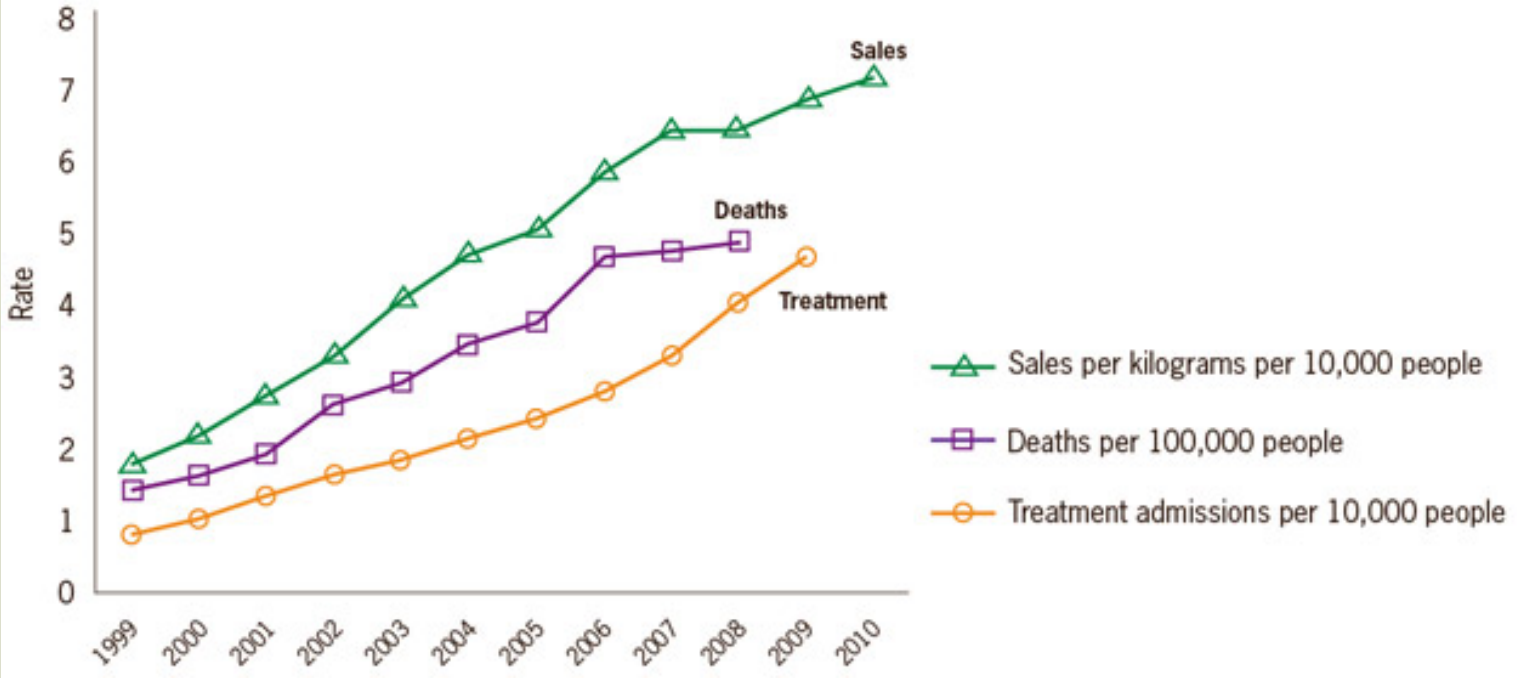
The Heroin Epidemic

- 1980s – First Xalisco migrants set up heroin trafficking business in L.A.
- 1990s – Heroin cells expand across the west with pizza-delivery-style system
- 1998 – Xalisco black tar heroin crosses the Mississippi -> Columbus, OH
- 1995+ - Xalisco Boys heroin cells expand to numerous cities and suburbs
- 2000s – Heroin cells in 17 states
- 2015 – Fentanyl from China is mixed with or sold as heroin
- 2017 – Call your dealer and a delivery happens in 30 minutes, anywhere

Opioid Sales and Overdose Deaths

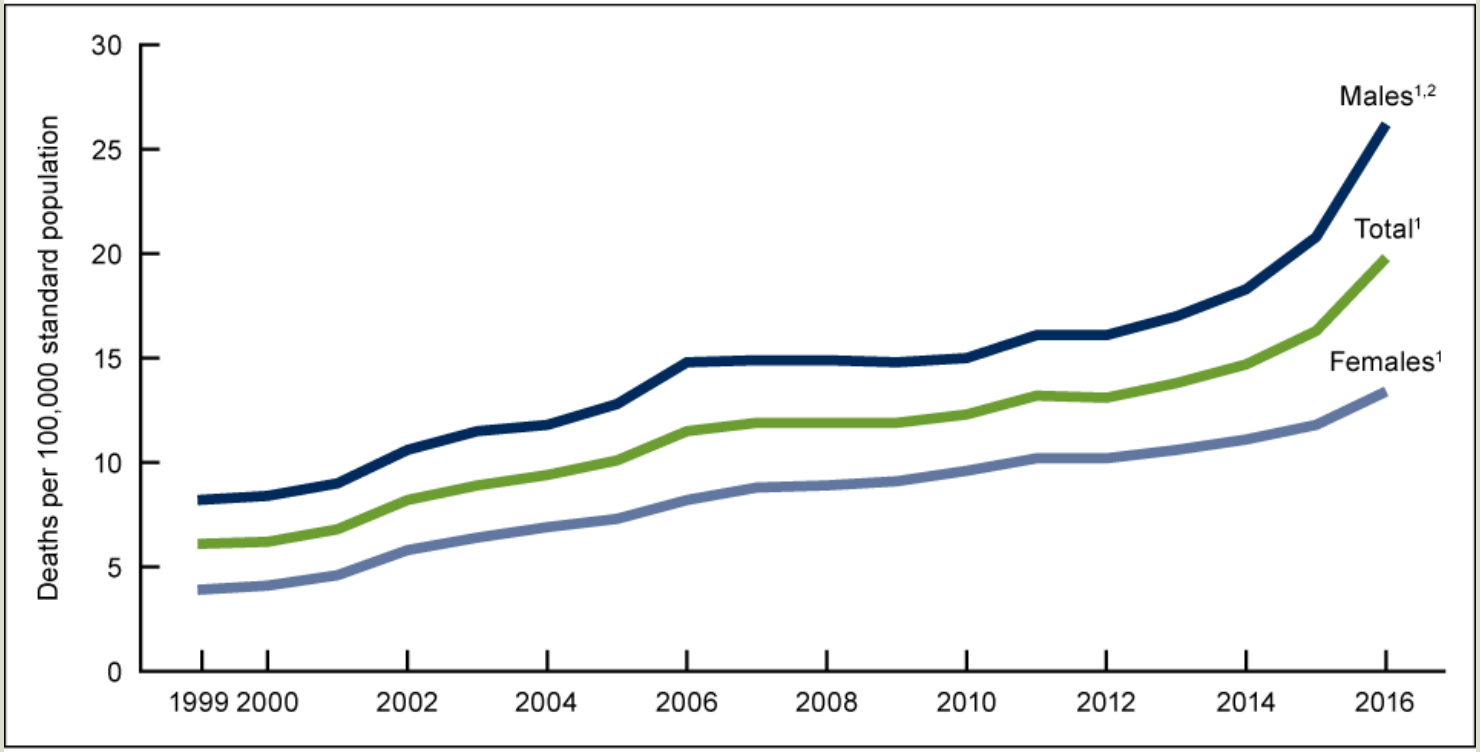


Women Too


Rate
0
1
2
3
4
5
6
7
8
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
Sales
Deaths
Treatment
Sales per kilograms per 10,000 people
Deaths per 100,000 people
Treatment admissions per 10,000 people

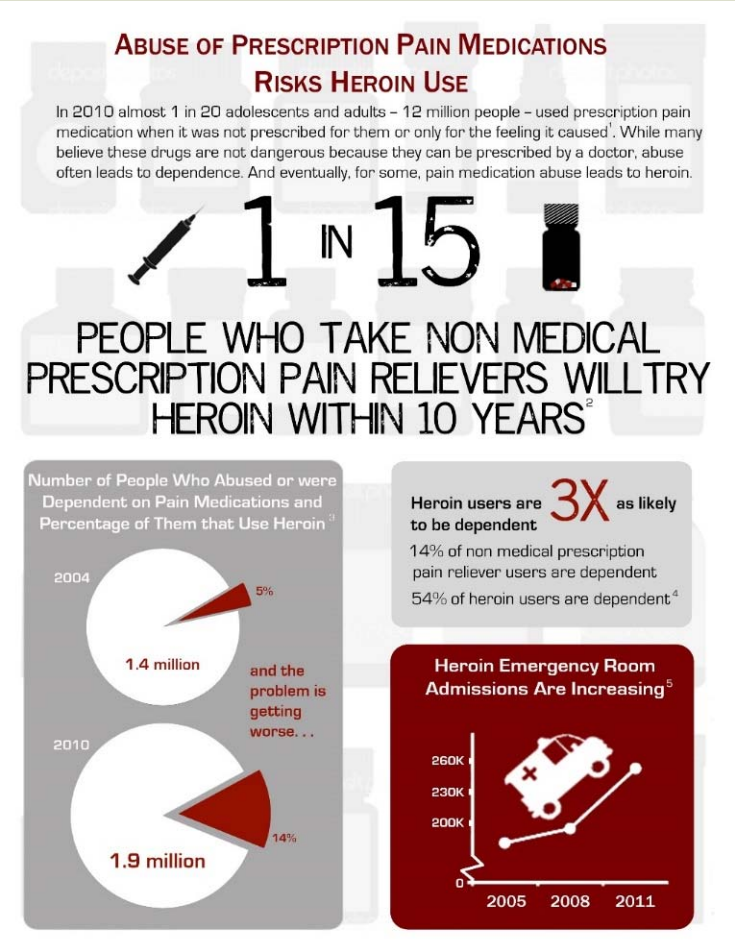
Opioid Deaths 1999 – 2016

Figure 1. Age-adjusted drug overdose death rates: United States, 1999–2016



[1]Significant increasing trend from 1999 to 2016 with different rates of change over time, $p < 0.001$.
[2]2016 rate for males was significantly higher than for females, $p < 0.001$.
NOTES: Deaths are classified using the *International Classification of Diseases, Tenth Revision*. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. The number of drug overdose deaths in 2016 was 63,632. Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/databriefs/db294_table.pdf#1.
SOURCE: NCHS, National Vital Statistics System, Mortality.

Producing the Heroin Epidemic



Some Current Facts

- Every day in the United States, 105 people die as a result of drug overdoses involving heroin or pharmaceutical opioids, according to the CDC.
- The nationwide crackdown on prescription pill abuse has made those drugs harder and more expensive to get. As a result, heroin has become a common substitute for prescription pills.
- These days, heroin is a cheaper alternative to opioids, according to the NYC Department of Health.
- In drug using subcultures (including suburbia) heroin is often the first opioid used

How it Starts

Into it

How it ends

Definition of Addiction

- Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.

Definition of Addiction II

- Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death

Not All Use is Addiction

- 80% of persons between 18 and 21 abuse substances
  - Sometimes including opiates
  - Sometimes with fatal results
  - Often with medically impactful results
- Only c.10% of the population who use opiates develops Addiction
  - Also with medically impactful results
  - And with progressive social and interpersonal results

- So, we should address the abusers as well as those with Addiction

Withdrawal Symptoms Don't Always Mean Addiction

- Many pharmacotherapies cannot be abruptly stopped without withdrawal symptoms
  - Prednisone
  - SSRIs
  - Clonidine
  - Opioids

- Patients prescribed opiates for more than a month will have withdrawal on discontinuation
  - Withdrawal includes the symptoms for which the medication was prescribed
  - Also includes psychological and emotional symptoms.

Chronic Disease Management Model of Addiction

- Addiction is a chronic brain disease
  - Not a chosen state
- We cannot perform an addictionectomy
- Patients with addiction require longitudinal care
  - Relapse is to be avoided, but it happens

- Retention in treatment is the key to success

Treatment of Addiction

- Psychosocial therapies
  - Leading to and including mutual support meetings (AA/NA)
- Medications
  - Those specific for and approved for addiction treatment
  - For opioids, only address neuroadaptation

Psychosocial Therapies

- Everyone with addiction requires psychosocial treatment
- Multiple levels of care
  - Identified by characteristics of the patient
  - Not too much, not too little
    - Don’t give insulin to someone who needs diet & exercise
- Described in the ASAM Criteria®

Detoxification

- Use a drug with a long half-life and low abuse potential, that is smoothly eliminated
  - Replace the abused drug with the detox drug
  - Initiate psychosocial treatment
  - Taper (or maintain) the detox drug

- This is **illegal** for opiates unless you are:
  - A federally licensed methadone maintenance program
  - A waivered (X numbered) physician
    - Or maintaining an outpatient medication in a hospitalized patient

Medication Assisted Recovery

- FDA Approved Medications for the Treatment of Opiate Dependence: Literature Reviews on Effectiveness and Cost-Effectiveness
  - Report developed for the American Society of Addiction Medicine by the Treatment Research Institute (TRI), 2013

Results of TRI Report

- Methadone, Buprenorphine and Vivitrol® are cost effective for the treatment of addiction to opiates
- All three are underutilized

Medication Assisted Recovery (MAR)
Sometimes Called MAT

- Prevents withdrawal
- Diminishes drug craving
- Blocks or attenuates the effects of heroin and other abused opiates
- Increases retention rates in treatment
- Enables participation in a comprehensive program of rehabilitation

Why MAR for Opiate Addicts

- Post Acute Withdrawal Syndrome (PAWS)
  - What I learned with naltrexone induced detoxification
    - Physical detox – followed by
      - Anergy, anhedonia, anorexia
      - Anger, self-centeredness, external locus of control
- Always happens
- Lasts months to years without naltrexone induction
- Predicts relapse
- Impairs spiritual growth and ability to connect
- Looks like a Personality Disorder
  - Gets people kicked out of treatment

Medications For Maintenance

- Methadone
- Naltrexone
- Buprenorphine

Methadone

- As part of a comprehensive rehabilitation program methadone maintenance has been shown to:
  - Decrease illicit opiate use
  - Normalizes immune and endocrine systems
  - Decrease criminal activities
  - Increase pro-social activities

- Many programs not very comprehensive
  - That should be improved

Naltrexone

- Gold standard for abstinence in opiate addiction treatment
- Pure antagonist
- Effective only if taken
- Blocks all opiates
  - But apparently not endorphins

- Injectable extended release product (Vivitrol)®
  - Much more effective than oral
  - Can involve the support system
    - Documentation of injection is important and helpful

Buprenorphine

- Available since 2004
- Can be provided in an office based practice
- Covered by most payers
- Well tolerated by patients
- Effective
- **NOT** substituting one addiction for another
  - Patients don't have the symptoms of addiction from taking buprenorphine

Hard Science - Outpatient

- Several studies have shown that relative to outpatient, abstinence-oriented drug abuse treatment, office-based outpatient treatment (OBOT) with buprenorphine improves six-month treatment engagement (50-60% retention at six months vs. 25 to 40%); significantly reduces cravings, illicit opioid use and; **and improves psychosocial outcomes**

From TRI Review

Combined Programs

- Several traditional treatment programs have welcomed MAR in traditional Intensive Outpatient Programs (IOP)
- No good reason why traditional treatment for addiction is incompatible with OBOT

Barriers to Access

- Dosage/duration limitations
- Prior authorization requirements
- “Fail first” policies
- Lack of coverage
- Shortage of prescribers
- Artificial limits to the number of patients per prescriber

Recommendations for Physicians Treating Pain

- On new patients, studiously follow the CDC guidelines.
  - It may be that injury and surgery to connective tissue requires more than seven days, but not more than six weeks, of opioid analgesia.
    - The dose and length of the initial prescription for opioids is positively associated with the development of an opioid use disorder.
- Studiously avoid the concurrent prescription of benzodiazepines and opioids.
- In patients who have already become neuroadapted to opioid use, engage in education and a very gradual and gentle taper.
- If benzodiazepines have been a part of the prescribed regimen, taper and eliminate benzodiazepines.

Recommendations - 2

- Support and refer to interventional pain physicians and interventional modalities that minimize the need for opioid analgesia
- Learn about Complementary Alternative Medicine strategies and practitioners
- Encourage the inclusion of movement and exercise into the treatment of pain
  - Insist on referrals to physical therapy as part of pain management
- Remember that opioids are not helpful in chronic, stable pain of musculoskeletal origin

Recommendations - 3

- Chronic Pain Disorder is a combination of an uncomfortable sensation, and suffering - what is believed and feared about pain and the feelings related to the existence of the pain or its cause.
- There is no medicine for suffering. Relief from suffering is psychotherapeutic and spiritual.
- Consider referral of unreasonably resistant patients to addiction treatment facilities

- For a copy of these slides

- kenroymd@arrno.com