Prescription Opioids: The Real Story

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Disclaimer: The information that I am presenting is my own opinion (based on a large amount of research). It is not the opinion of the National Safety Council.

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Drug distribution through the pharmaceutical supply chain was the equivalent of **96 mg** of morphine per person in 1997 and approximately **700 mg** per person in 2007, an increase of >600%.

The State of US Health

Years lived with disability (in thousands)

Institute of Medicine
Relieving Pain in America 2011

“Pain affects millions of Americans; contributes greatly to national rates of morbidity, mortality, and disability; and is rising in prevalence.”

Rates of opioid overdose deaths, sales and treatment admissions, US, 1999-2010

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<th>Year</th>
<th>Opioid Sales KG/10,000</th>
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Pain

An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.

International Association for the Treatment of Pain
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International Association for the Treatment of Pain
Acute pain: treatment

• Acetaminophen
  – Tylenol
• NSAIDS
  – Ibuprofen, naproxen, diclofenac, Celebrex, many others.
• Opioids
  – Morphine, oxycodone, hydrocodone, fentanyl, heroin.
• Topical agents
Acetaminophen

• Pros:
  – Analgesic
  – Antipyretic
  – Oral and IV
  – Minimal GI side-effects
  – NNT is 3.5 for 500 mg for 50% pain relief

• Cons
  – No anti-inflammatory properties

NSAIDs

• Pros:
  – Analgesic
  – Antipyretic
  – Anti-inflammatory
  – Oral, IM and IV
  – NNT for 50% pain relief
    • Ibuprofen 200 mg: 2.7

• Cons:
  – Side effects:
    • GI
    • Renal
    • Cardiac
Opioids

• Pros
  – Analgesic
  – Oral, IM and IV
  – NNT (morphine 10 mg IM) = 2.9

• Cons
  – Mentally impairing
  – Delay recovery
  – Increase medical costs
  – Opioid hyperalgesia
  – Double the chance of disability
  – Increase falls
  – Cardiac, GI?
  – Addiction
Efficacy of pain medications

Percent with 50% pain relief (beyond placebo)

- Ibuprofen 200 mg
- Acetaminophen 500 mg
- Ibuprofen 400 mg
- Oxycodone 15 mg
- Oxy 10 + acet 1000
- Ibuprofen 200 + acet 500

Percent with 50% pain relief
A 2005 Cochran review concluded:

NSAID medications and opioids have equal effectiveness in treatment of acute renal colic… but opioids have more side-effects.

Chronic pain

• No evidence that opioids are effective for long-term treatment of chronic pain.

• “Safe and effective” use of opioids for chronic pain is an invalid concept.
  – No evidence that these can be used safely
  – No evidence that they can be used effectively

• Epidemiologic studies have shown that those on chronic opioid therapy have worse quality of life than those with chronic pain who are not¹.

125,000

- Number of deaths in the last decade from opioids.
- More than twice the number of American deaths in the Vietnam war.
- Medical and dental community are the vector.
- This epidemic is completely reversible with a change of behavior that will result in better pain management.
Culture of Safety

• As you discuss programs and policy to prevent prescription drug problems, you are NOT weighing the appropriate treatment of pain against public health.
  – Reducing opioid prescribing will improve the treatment of pain and reduce abuse, addiction and overdose.

• We must develop innovative ways to get the “culture of safety” into physician and dental offices.
“To write prescriptions is easy, but to come to an understanding with people is hard.”

-- Franz Kafka, “A Country Doctor”
White papers

Evidence on the efficacy of pain medications: nsc.org/painmedevidence

The Psychological and Physical Side Effects of Pain Medications:
safety.nsc.org/sideeffects