Trends in Ambulatory Opioid Use for All-Diagnoses and Back Pain in the USA

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UUU PM&R 2013
Opioid Use

• No one disagrees regarding the use of opioids for:
  • Cancer/malignant pain
  • Post-surgical pain
  • Post-traumatic pain
  • Acute, episodic pain

• Their appropriate use in chronic nonmalignant pain?
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  - Drug responsible for the most overdoses?
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    - #2 = PRESCRIPTION OPIATES!!
- During this talk 2 Americans will die from?
INTRODUCTION

- When and how did this happen?

That’s 1.4 grams per American in 2010
US Medicine Historical Perspective

- 1950s: Opioids avoided due to societal impact and addiction concerns
- 1980s: Opinions begin to change
- 1990s: More liberal prescribing:
  - Cancer pain
  - Chronic nonmalignant pain
- 2000s: More rapid upswing
  - OxyContin controversy began
    - Deceptive advertising to physicians
    - Illicit trafficking
- 2010s: Backswing
  - Addiction and Abuse potential
  - Societal impact
Florida's Top Five Drug Killers in 2010

- Oxycodone: 1,516 Deaths
- Benzodiazepines: 1,304 Deaths
- Methadone: 694 Deaths
- Alcohol: 572 Deaths
- Cocaine: 561 Deaths

Source: Florida Medical Examiners Commission Annual Report of Drugs in Deceased Persons
Grand Opening
FIRST CHOICE PHARMACY

$25 OFF FIRST NEW PRESCRIPTION
Walk-Ins Welcome

954-332-7885
561-340-3838

41 E. COMMERCIAL BLVD.
FT. LAUDERDALE, FL 33340
517 NORTHLAKE BLVD.
PALM BEACH, FL 33408

Chronic Pain Relief
NEW PATIENTS SHORT WAIT PERIODS
PHARMACY ON SITE
SOUTHEAST FLORIDA PAIN MANAGEMENT

954.771.3555
561.844.4400

41 East Commercial Blvd. • Fort Lauderdale, FL 33334
Medical Director Dr. Risco
517 Northlake Blvd. • North Palm Beach, FL 33406
Dr. Deuss
**Oxycodone Purchases**  
**Nationwide 2009**

**Practitioner Purchases**

**Pharmacy purchases**

Source: DEA, ODP, Targeting and Analysis 11/19/2010
WHO’s TO BLAME FOR THIS MESS?
WHO’s TO BLAME FOR THIS MESS?

- Drug Companies
- The Patients/Public?
- The Authorities?
- The Doctors?
Figure 2: Narcotic analgesics that changed in frequency from 1995 to 2002

DAWN Report

*Codeine-involved visits decreased from 1995-2002, but increased from 2001 to 2002.

The GAO found 170,000 incidents of Doctor Shopping By Medicare Part D recipients
- All seen by 5+ providers
- Prescriptions mostly for Oxycodone or Hydorcodone
More educated emergency department patients are less likely to receive opioids for acute pain

Timothy F. Platts-Mills a,b,*, Katie M. Hunold a, Andrey V. Bortsov a, April C. Soward a, David A. Peak c, Jeffrey S. Jones d, Robert A. Swor e, David C. Lee f, Robert M. Domeier g, Phyllis L. Hendry h, Niels K. Rathlev i, Samuel A. McLean a,b
THE PATIENTS/PUBLIC

• The Media
  • Google news search “opiod epidemic” = 612 hits
  • Recent headline story in most major news outlets

Studies Downplayed Opioid Risks
By Peter Whoriskey / The Washington Post
Published: January 02, 2013 4:00AM PST
THE AUTHORITIES

- May 2012
  - U.S. Senate Finance Committee Probe
  - American Pain Foundation shuts down
THE AUTHORITIES

- FDA
  - 2012: Opioid REMS
  - 2 weeks ago: Guidance for Industry: Abuse-Deterrent Opioids
  - Forthcoming: Hydrocodone change to schedule II

- Federal Legislation

- State Legislation

- Law enforcement
THE AUTHORITIES

Bloomberg Businessweek
Companies & Industries

Features
American Pain: The Largest U.S. Pill Mill's Rise and Fall

By Felix Gillette on June 06, 2012 | 31 Comments
Florida in the first six months of 2011
Prescription Drug Related Deaths in FL

Source: Florida Medical Examiners Reports 2007-2011

Year | Deaths
--- | ---
2007 | 8,620
2008 | 8,556
2009 | 8,653
2010 | 9,001
2011 (Jan-Jun 2011) | 4,329
THE AUTHORITIES
THE AUTHORITIES

• 2012 REMS

FDA Blueprint for Prescriber Education for Extended-Release and Long-Acting Opioid Analgesics  7/9/2012

Introduction for the FDA Blueprint for Prescriber Education for Extended-Release and Long-Acting Opioid Analgesics

In April 2011, FDA announced the elements of a Risk Evaluation and Mitigation Strategy (REMS) to ensure that the benefits of extended-release and long-acting (ER/LA) opioid analgesics outweigh the risks. The REMS supports national efforts to address the prescription drug abuse epidemic.

As part of the REMS, all ER/LA opioid analgesic companies must provide:

• Education for prescribers of these medications, which will be provided through accredited continuing education (CE) activities supported by independent educational grants from ER/LA opioid analgesic companies.
• Information that prescribers can use when counseling patients about the risks and benefits of ER/LA opioid analgesic use.

THE AUTHORITIES

• 2012 REMS

The expected results of the prescriber education in this REMS are that the prescribers will:

a. Understand how to assess patients for treatment with ER/LA opioid analgesics.
b. Be familiar with how to initiate therapy, modify dose, and discontinue use of ER/LA opioid analgesics.
c. Be knowledgeable about how to manage ongoing therapy with ER/LA opioid analgesics.
d. Know how to counsel patients and caregivers about the safe use of ER/LA opioid analgesics, including proper storage and disposal.
e. Be familiar with general and product-specific drug information concerning ER/LA opioid analgesics.

"Did I teach about pain management, specifically about opioid therapy, in a way that reflects misinformation? Well, against the standards of 2012, I guess I did. We didn't know then what we know now."

- Russell Portenoy, MD
THE DOCTOR

- Yet to show long-term benefit

- Role of Physicians?
  - Observed trends documented by
    - payer administrative data
    - drug sales data
    - medication distribution data

- Role of Physiatrists
THE DOCTOR

- Yet to show long-term benefit

- Role of Physicians?
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- Role of **Physiatrists**

  Per-capita #1 prescribers
PHYSICIAN PRESCRIBING?

TRENDS IN AMBULATORY OPIOID USE FOR ALL-DIAGNOSIS AND BACK PAIN IN THE UNITED STATES, 1997-2009

Ming-Chih Jeffrey Kao, PhD, MD
Lyly Cao Minh, MD
Grace Y Huang, MD
Raj Mitra, MD
Matthew Smuck, MD

**Purpose**: To assess the impact of clinical decision-making of American healthcare providers, and the degree of contribution of changing disease rates and demographics.
Methods:
- Nationally representative surveys
  - NHAMCS
  - NAMCS
- Queried to investigate the rate of opioid prescription in:
  - Emergency department
  - Primary care physician offices
  - Specialist physician offices

Stage 1: Geographic regions are selected with probability proportional to a measure of size (PPS)
Stage 2: Hospitals are selected with PPS
Stage 3: Clinics are selected from hospitals
Stage 4: Systematic random sample of patient visits during a randomly assigned 4-week period
TRENDS IN AMBULATORY OPIOID USE 1997-2009
MCJ Kao, LC Minh, GY Huang, R Mitra, M Smuck

- Methods:
  - Outcome measures
    - Provider-reported diagnoses
      - Back Pain
    - Patient demographics
    - Insurance source
    - Prescribed medications

- Statistics
  - Weighted logistic regression modeling was performed to estimate 5-year odds ratios and covariate effects.
  - Data analysis was performed using SAS.
Results:
- We observed and controlled for significant shifts in:
  - Patient demographics
  - Disease prevalence
  - Insurance access
- We also adjusted for age, race, and gender
• Results:
  • All-diagnosis opioid prescription steadily increased
    • 5-year odds ratios of 1.33 (ED), 1.29 (PCP), and 1.50 (Specialist)
      • 95% CI 1.26-1.41, 1.19-1.40, and 1.36-1.66, respectively
  • Back-pain diagnosis opioid prescribing increase even more
    • 5-year odds ratios of 1.35 (ED), 1.39 (PCP), and 1.73 (Specialist)
      • 95% CI 1.22-1.48, 1.20-1.61, 1.39-2.16, respectively

<table>
<thead>
<tr>
<th>5-Year Odds Ratio</th>
<th>All-Diagnosis Opioids Prescription</th>
<th>Receiving Back-pain Diagnosis</th>
<th>Back-Pain Opioids Prescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED</td>
<td>1.333 (1.258-1.412)*</td>
<td>1.123 (1.071-1.177)*</td>
<td>1.347 (1.222-1.484)*</td>
</tr>
<tr>
<td>PCP</td>
<td>1.290 (1.192-1.396)*</td>
<td>1.294 (1.21-1.384)*</td>
<td>1.387 (1.195-1.611)*</td>
</tr>
<tr>
<td>Specialist</td>
<td>1.499 (1.355-1.658)*</td>
<td>1.138 (0.985-1.315)</td>
<td>1.733 (1.387-2.164)*</td>
</tr>
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Trends in all-diagnosis opioid prescription in ambulatory settings in the U.S. by ambulatory care settings, from 1997 to 2009
TRENDS IN AMBULATORY OPIOID USE 1997-2009

MCJ Kao, LC Minh, GY Huang, R Mitra, M Smuck

Diagnosis of back pain in the U.S. by ambulatory care settings, from 1997 to 2009
Percentage of back pain visits leading opioid prescription in the U.S. by ambulatory care setting, from 1997 to 2009
TRENDS IN AMBULATORY OPIOID USE 1997-2009
MCJ Kao, LC Minh, GY Huang, R Mitra, M Smuck

Emergency Department

Trends in regional pain

Trends in opioid Rx
Discussion

We found that:

- Changes in opioid prescribing vary across the context of ambulatory care
- Increases in opioid prescription are not accounted for by shifts in
  - Demographics
  - Healthcare access
  - Disease incidence
    - Including back pain!

- A substantial rise in opiate prescribing can be attributed to:
  increased in back pain diagnosis + increased Rx for back pain
WHAT CAN WE DO?

- Responsible opioid prescribing
- Standardize office policy
- Educate patients/community
Thank You!

LET'S GO NINERS

49ers