Conversion of High Dose Opioid Patients to Buprenorphine

Chronic Opioid Therapy or Medically Assisted Treatment Of Addiction?

Paul Coelho, MD

September 22, 2017

Disclosure:
Dr. Coelho has nothing to disclose. He will not be discussing any off label use.
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The Lost Generation

The Lost Generation

“I think we are dealing with a lost generation of patients.”

Jane Ballantyne, MD, FRCA


The Lost Generation

Highschool Educated Whites ages 45-54

“addictions are hard to treat and pain is hard to control, so those currently in midlife may be a “lost generation” whose future is less bright than those who preceded them.”

http://www.pnas.org/content/112/49/15078.full
An Operational Definition of the Lost Generation

Individuals with chronic non-cancer pain who have been maintained on ≥ 250MED or greater for months to years.


Exhibit 3: Rate of Members Diagnosed with Opioid Use Disorder and Their Opioid Usage by Dosage and Duration in 2015 (Per 1,000 Members)

An Operational Definition of the Lost Generation

N = 540K

Table 3: Variables Associated With Incident OUDs

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unadjusted OR (95% CI)</th>
<th>Adjusted OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No opioid use</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Low dose, acute</td>
<td>3.31 (2.54-4.31)***</td>
<td>3.03 (2.32-3.95)***</td>
</tr>
<tr>
<td>Med dose, acute</td>
<td>1.63 (1.23-2.26)***</td>
<td>1.43 (1.10-1.86)***</td>
</tr>
<tr>
<td>Med dose, chronic</td>
<td>3.04 (2.21-4.17)***</td>
<td>2.60 (1.89-3.57)***</td>
</tr>
<tr>
<td>High dose, acute</td>
<td>3.19 (2.45-4.10)***</td>
<td>2.79 (2.11-3.73)***</td>
</tr>
<tr>
<td>High dose, chronic</td>
<td>171.95 (105.97-279.68)***</td>
<td>157.95 (99.79-265.99)***</td>
</tr>
</tbody>
</table>

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4032801

World-Wide Rx’ing Variation

Log Scale

USA

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3974672/
Salem Oregon Variation

2014 CMS Data

Prescribing Decile by Specialty

https://data.cms.gov/Medicare-Claims/Medicare-Part-D-Opioid-Prescriber-Summary-File-201/e4ka-3ncx/data

The Structured Opioid Refill Clinic

SALEM HEALTH
An OHSU Partner
The Structured Opioid Renewal Clinic

The opioid renewal clinic: a primary care, managed approach to opioid therapy in chronic pain patients at risk for substance abuse.

Objective: To measure the impact of a structured opioid renewal program for chronic pain run by a nurse practitioner (NP) and clinical pharmacist in a primary care setting.

Patients and Setting: Patients with chronic noncancer pain managed with opioid therapy in a primary care clinic staffed by 13 providers serving 50,000 patients at an urban academic Veterans hospital.

Design: Naturalistic prospective outcome study.

Intervention: Based on published opioid prescribing guidelines and focus groups with primary care providers (PCPs), a structured program, the Opioid Renewal Clinic (ORC), was designed to support PCPs managing patients with chronic noncancer pain requiring opioids. After training in the use of opioid treatment agreements (OTAs) and random urine drug testing (UDT), PCPs worked with a pharmacist-run prescription management clinic supported by an onsite pain NP who was backed by a multi-specialty Pain Team. After 2 years, the program was evaluated for its impact on PCP practice and satisfaction, patient adherence, and pharmacy cost.

Results: A total of 351 patients were referred to the ORC. Of the 171 (51%) with documented aberrant behaviors, 77 (46%) adhered to the OTA and resolved their aberrant behaviors, 65 (38%) self-discharged, 22 (13%) were referred for addiction treatment, and seven (4%) with consistently negative UDT were weaned from opioids. The 180 (51%) who were referred for complexity including history of substance abuse or need for opioid rotation or titration, with no documented aberrant drug-related behaviors, continued to adhere to the OTA. Use of UDT and OTAs by PCPs increased. Significant pharmacy cost savings were demonstrated.

Conclusion: An incentivized pharmacist-run clinic, supported by a multi-specialty team, can successfully support a primary care practice in managing opioids in complex chronic pain patients.

Oregon PDMP Data

High-burden regions
Based on prescribing data, opioid overdose outcome rates, and population

1. Multnomah, Washington
2. Lane, Douglas
3. Coos, Curry, Josephine
4. Clatsop, Tillamook, Columbia
5. Lincoln, Linn, Benton
6. Deschutes, Crook, Jefferson
7. Marion, Yamhill, Polk
8. Clackamas
9. Baker, Umatilla, Malheur, Union

Jackson County—developed the community model
Marion County PDMP
Demographics of ~1,600 Pt’s on > 120MED

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Male</td>
<td>775</td>
<td>47.2%</td>
</tr>
<tr>
<td>Female</td>
<td>845</td>
<td>52.8%</td>
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<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>18-29</td>
<td>140</td>
<td>8.5%</td>
</tr>
<tr>
<td>30-44</td>
<td>347</td>
<td>21.0%</td>
</tr>
<tr>
<td>45-59</td>
<td>421</td>
<td>25.6%</td>
</tr>
<tr>
<td>60+</td>
<td>454</td>
<td>27.6%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>City of Residence</th>
<th>Frequency</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Salem</td>
<td>367</td>
<td>22.5%</td>
</tr>
<tr>
<td>Keizer</td>
<td>225</td>
<td>13.7%</td>
</tr>
<tr>
<td>Woodburn</td>
<td>123</td>
<td>7.4%</td>
</tr>
<tr>
<td>Glencoe</td>
<td>96</td>
<td>5.7%</td>
</tr>
<tr>
<td>Other Marion County</td>
<td>303</td>
<td>18.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drug</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioids</td>
<td>163</td>
<td>9.8%</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>400</td>
<td>24.2%</td>
</tr>
<tr>
<td>Methadone</td>
<td>196</td>
<td>11.8%</td>
</tr>
<tr>
<td>Narcotic</td>
<td>79</td>
<td>4.8%</td>
</tr>
<tr>
<td>Pentazocine</td>
<td>50</td>
<td>3.0%</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>157</td>
<td>9.5%</td>
</tr>
<tr>
<td>Morphine</td>
<td>40</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

Special Thanks to Lisa Millet & Josh VanOtterloo

My Marion County Practice
6mo look back from PDMP (N = 375)

<table>
<thead>
<tr>
<th>&gt; 120 MED*</th>
<th>100 (~6% of County Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MED Range</td>
<td>120 - 4000</td>
</tr>
<tr>
<td>MED Average</td>
<td>360</td>
</tr>
<tr>
<td>Co-prescribed a benzo</td>
<td>40%</td>
</tr>
<tr>
<td>Average Age</td>
<td>60</td>
</tr>
<tr>
<td>Gender</td>
<td>57% Female</td>
</tr>
<tr>
<td>*Fibromyalgia</td>
<td>50%</td>
</tr>
<tr>
<td>*Average PCS</td>
<td>22</td>
</tr>
<tr>
<td># of buprenorphine pts</td>
<td>50</td>
</tr>
</tbody>
</table>

* 2016 Fibromyalgia screening questionnaire: https://www.slideshare.net/101N/2016-fibromyalgia-survey-questionnaire
* Pain catastrophizing scale: https://www.slideshare.net/101N/pain-catastrophizing-scale
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CMS Opioid Misuse Strategy

January 5, 2017

CMS is also committed to providing information and tools to identify and address inappropriate provider prescribing and beneficiary utilization of opioids. By January 1, 2019, CMS will enforce requirements that the vast majority of prescribers who write prescriptions for Medicare Part D beneficiaries must be enrolled in Medicare or be validly opted out in order for the beneficiaries’ drugs to be covered. This enrollment requirement will allow Medicare to have better oversight of prescriber behaviors and revoke enrollment of providers proven to demonstrate inappropriate behaviors.

The Medicare Part D Opioid Prescriber Summary File, which will build on this Medicare prescriber enrollment requirement, presents information on the individual opioid prescribing rates (for new prescriptions as well as refills) of prescribers of Part D drugs. This public data set will provide information on the number and percentage of prescription claims for opioid drugs, as well as each provider’s name, specialty, state, and zip code. The file can be used to explore the impact of prescribing practices of controlled substances on vulnerable populations.


OIG Opioid Misuse Strategy

https://oig.hhs.gov/oei/reports/oei-02-17-00250.pdf
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DSM-5 Opioid Use Disorder

Opioid Use Disorder Diagnostic Criteria

A problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 1-month period:

1. Tolerance: development of tolerance, i.e., increased intake or decreased effect of opioids.
2. Withdrawal: physiological or psychological signs of opioid withdrawal during an opioid-free period.
3. Impaired control: difficulty in exercising control over opioid use.
5. Social or occupational impairment: impairment in social or occupational activities due to opioid use.


Addiction Circuitry

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Euphoria

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4358739/

Dysphoria

https://pubs.niaaa.nih.gov/publications/arh40/144-151.htm
Avoiding Withdrawal


**Reasons for opioid use among patients with dependence on prescription opioids: the role of chronic pain.**

Weiss RD¹, Porter AP², Griffin ML¹, McHugh RK³, Haller D⁴, Jacobs K⁵, Gardner J Jr⁶, Fischer DJ⁷, Rosenn KD⁸.

**Abstract**

The number of individuals seeking treatment for prescription opioid dependence has increased dramatically, fostering a need for research on this population. The aim of this study was to examine reasons for prescription opioid use among 563 participants with and without chronic pain, enrolled in the Prescription Opioid Addiction Treatment Study, a randomized controlled trial of treatment for prescription opioid dependence. Participants identified initial and current reasons for opioid use. Participants with chronic pain were more likely to report pain as their primary initial reason for use, avoiding withdrawal was rated as the most important reason for current use in both groups. Participants with chronic pain rated using opioids to cope with physical pain as more important, and using opioids in response to social interactions and craving as less important, than those without chronic pain. Results highlight the importance of physical pain as a reason for opioid use among patients with chronic pain.


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**Opioid Withdrawal Symptoms**

**Early Symptoms (1st 24hrs)**
- muscle aches
- restlessness
- anxiety
- lacrimation (eyes tearing up)
- runny nose
- excessive sweating
- inability to sleep
- yawning very often

**Later symptoms**
- diarrhea
- abdominal cramping
- goose bumps on the skin
- nausea and vomiting
- dilated pupils and possibly blurry vision
- rapid heartbeat
- high blood pressure
Avoiding Withdrawal

In Opioid Withdrawal, With No Help In Sight
A patient returns prescription—without an accident—and no support from his providers as he tries to taper off.

Harm Reduction Strategies
Harm Reduction

1. Identify patients at risk via PDMP
2. Offer nasal naloxone for MED > 50
3. Offer benzodiazepine and opioid tapers
4. Offer rotations to buprenorphine for those who fail tapers

Rx Nasal Naloxone

SB 334 Legalized Lay Administration in OR in 2013. *CDC recommends co-prescribing for MED > 50. Must request it to be stocked at your Pharmacies. Train spouses/loved-ones to build And administer. Provide a handout.

*CDC also recommends naloxone for pt on any dose of opioids if either co-rx’d benzos or with a h/o any substance use disorder.
Opioid & Benzo Tapers

If MED > 90 I offer a slow taper with a negotiable tempo. If co-prescribed benzodiazepines I will start by tapering the opioid first. Once tapers are started there is no going back, but I do offer pauses. Tapering patients are seen weekly to Q8wks Depending upon individualized risk.

Opioid Taper Rules of Thumb

Slow and Steady

120MED & Below ~ 3mo
120MED – 250MED 3 – 6mo
250MED – 500MED 6 – 9mo
500MED – 1000MED 12mo +
Buprenorphine

For Treatment of Opioid Use Disorder

1. A schedule III Drug
2. Partial mu agonist
3. FDA approved for both pain & addiction
4. Ceiling effect for respiratory suppression
5. Morphine equivalence of 30:1
6. A Data-2000 (x-wavier) is required to Rx buprenorphine

Buprenorphine

Oral Morphine Milligram Equivalent Conversion Factors

<table>
<thead>
<tr>
<th>Opioid (strength in mg except where noted)</th>
<th>MME Conversion Factor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine, transdermal patch (MCO/MM)</td>
<td>12.6</td>
</tr>
<tr>
<td>Buprenorphine, tablet or film</td>
<td>30</td>
</tr>
<tr>
<td>Butorphanol</td>
<td>0.03</td>
</tr>
<tr>
<td>Codeine</td>
<td>0.15</td>
</tr>
<tr>
<td>Dihydrocodeine</td>
<td>0.25</td>
</tr>
<tr>
<td>Fentanyl, buccal/lozenge (MG)</td>
<td>0.13</td>
</tr>
<tr>
<td>Fentanyl, film or nasal spray (MCG)</td>
<td>0.18</td>
</tr>
<tr>
<td>Fentanyl, nasal spray (MCG)</td>
<td>0.16</td>
</tr>
<tr>
<td>Fentanyl, transdermal patch (MCG/MM)</td>
<td>7.2</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>1.0</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>4.0</td>
</tr>
<tr>
<td>Levomethadyl acetate</td>
<td>4.0</td>
</tr>
<tr>
<td>Levonorcodein (tablet)</td>
<td>11.0</td>
</tr>
<tr>
<td>Meperidine</td>
<td>0.1</td>
</tr>
<tr>
<td>Methadone</td>
<td>3.0</td>
</tr>
<tr>
<td>Morphine</td>
<td>1.0</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>1.3</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td>3.0</td>
</tr>
<tr>
<td>Pentazocine</td>
<td>0.37</td>
</tr>
<tr>
<td>Tramadol</td>
<td>0.4</td>
</tr>
<tr>
<td>Tramadol</td>
<td>0.1</td>
</tr>
</tbody>
</table>

https://www.cdc.gov/drugoverdose/media/index.html
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Buprenorphine

8mg of SL buprenorphine ~ 250mg Morphine

https://www.cdc.gov/drugoverdose/media/index.html

Buprenorphine

Conversion from high-dose full-opioid agonists to sublingual buprenorphine reduces pain scores and improves quality of life for chronic pain patients.


RESULTS: After continuation of SL buprenorphine therapy for 2 months, the mean pain score decreased from 7.2 to 3.5 (P < 0.001), with 34 of the 35 patients examined reporting a decrease in pain. This pain score decrease was robust with regard to initial pain score and preconversion morphine equivalent dosage. Quality of life scores improved from 6.1 to 7.1 (P = 0.005).

Buprenorphine Induction

<table>
<thead>
<tr>
<th>Morphine</th>
<th>Methadone</th>
<th>Buprenorphine</th>
</tr>
</thead>
<tbody>
<tr>
<td>250mg</td>
<td>30</td>
<td>8mg</td>
</tr>
<tr>
<td>500mg</td>
<td>40</td>
<td>8-16mg</td>
</tr>
<tr>
<td>750mg</td>
<td>60</td>
<td>8-24mg</td>
</tr>
<tr>
<td>1000mg</td>
<td>80</td>
<td>8-32mg</td>
</tr>
</tbody>
</table>

https://opioidcalculator.practicalpainmanagement.com/index.php

Planned Withdrawal

https://www.slideshare.net/101N/opioid-withdrawal-attenuation-cocktail-75531338
Do not underestimate the Pt’s fear of Withdrawal!

1. Plan the induction a month in advance.
2. If possible load with gabapentin the preceding month.
3. Bring a printed ‘month calendar’ into the room and highlight withdrawal and induction days. Pt goes home with it. Be explicit and write everything down.
4. Emphasize how dysphoric precipitated withdrawal is! If you can help them dispose of excess medication.
5. Be confident when conveying the message that they can and will get through this. “We got this!”
6. Prepare to provide telephone emotional support during withdrawal days!
7. All inductions in my clinic are in office 45 – 90min.

Sample Cases
Ron

52y/o disabled/retired laborer with chronic back pain. No history of addiction, hep C, or aberrant behavior. Married x 30yrs with adult children. Prescribed OxyContin 60mg QID. (MED 360)

Brought Ron and his spouse in. Had a long, difficult Discussion about his medication dose. I diagnosed DSM 5 Opioid Use Disorder and Rx’d naloxone.

While initially very resistant to change, he eventually consented to induction with Buprenorphine 8mg and stabilized on 16mg/QD.
Linda

Linda is a 52y/disabled/retired office worker with chronic wide-spread pain (FMS). No history of addiction, hep c, or aberrant behavior. Married x 25yrs. Prescribed hydrocodone 10/325 8 QD, oxycodone IR 30mg 6 QD and OxyContin 80mg TID. MED 710

Brought Linda in for a discussion about her medication. Had the ‘difficult conversation’ about risk and the need for change. I diagnosed DSM 5 opioid use disorder. She consented to a conversion to buprenorphine. At was induced and stabilized with 16mg/QD
Richard

67 y/o C6 incomplete tetraplegic with SCI related pain. No history of addiction, hep C, or aberrant behavior. Married x 35yrs with grown children. Managed on morphine sulfate ER 100mg QID. MED 400

Richard

Brought Richard and his spouse in for a difficult conversation about his medication dose. He initially agreed to a taper of 30mg/mo but suffered miserably due to withdrawal symptoms. Given his tolerance, withdrawal symptoms, and inability to taper I diagnosed DSM 5 opioid use disorder. With great trepidation he eventually consented to a conversion to buprenorphine and stabilized on 12mg/d.
Margaret

31 y/o woman with Lupus and psoriatic arthritis. Rx’d oxycodone IR 30mg, 72 tabs per day, MED 3200. No h/o hep C or IVDA. Pill cnts and UDS consistent. Referral for residential tx was attempted. Offered pt. a 12wk taper with planned rotation to buprenorphine when MED < 1,000.

Margaret agreed to a 12wk taper to ~ 900 MED, 2d assisted Withdrawal and a rotation to buprenorphine. She was induced with 8mg of buprenorphine and stabilized at 16mg. Patient is resistant to the diagnosis of OUD and has been referred for counselling with a CADC.
Useful Links

Responsible Opioid Prescribing For CNP:
https://www.slideshare.net/101N/responsible-opioid-prescribing-for-cnp-79823137

Epic Smart Phrases for Common Pain Scenarios:
https://www.slideshare.net/101N/epic-smart-phrases-for-cnp-scenarios

Withdrawal Attenuation Cocktails:
https://www.slideshare.net/101N/opioid-withdrawal-attenuation-coctail

paul.coelho@salemhealth.org
You can view our previous webinars for a small fee for CME/CEU on the CSAM Education Center at:
http://cme.csam-asam.org/
OR
Free on the CHCF TAPC Program Resource Page at:

LAST WEBINAR:

Friday, 10/27/2017
Medication Assisted Treatment for Alcohol Use Disorder: A Guide for Primary Care Providers
For more information about the Naloxone Distribution Grant program

Visit: www.CDPH.CA.GOV

Or contact Nancy Bagnato
Phone: 916.552.9846
Email: Nancy.Bagnato@cdph.ca.gov

CHCF Project: MAT for Hospitals

- If you practice in California and know of a hospital that has educational or resource needs to better care for MAT patients during admissions for surgery, trauma or pregnancy-related care, please contact:
  - Dr Hannah Snyder: hannah.snyder@ucsf.edu
  - Goal: Increase access and quality of care in local California hospitals.
Thank you for participating in today’s webinar.

Stay online after the webinar ends and you will be connected to the post webinar quiz and evaluation.

You will also receive a link via email.