Confronting the Opioid Epidemic: Suboxone in Primary Care

Kami Harless, MD
The Opioid Epidemic
The Opioid Epidemic

FACT SHEET: President Obama Proposes $1.1 Billion in New Funding to Address the Prescription Opioid Abuse and Heroin Use Epidemic

Opioid overdoses deadlier than car crashes; state officials scramble for solutions
Washington Epidemic

Unintentional Opioid Overdose Deaths
Washington 1995-2014

- Heroin and/or Opioid Unspecified
- Prescription Opioids

Source: Washington State Department of Health, Death Certificates
King County Epidemic

King Primary Drug January 1, 2016

- Heroin: 2991 (48%)
- Alcohol: 1573 (25%)
- Cocaine: 243 (4%)
- Meth: 375 (6%)
- Other: 756 (12%)
- MJ: 334 (5%)
King County Epidemic

Heroin deaths spike in 2014

Deaths from heroin and methamphetamine climbed steeply between 2013 and 2014. Other drugs and alcohol saw lesser increases.

Number of drug-caused deaths in King County, 1997-2014

- **Heroin probable**
- **Other opiate**
- **Alcohol***
- **Cocaine**
- **Methamphetamine**
- **Benzodiazepine**

*Coding changed in 2008, prior data not comparable for alcohol*

Source: University of Washington Alcohol & Drug Abuse Institute

MARK NOWLIN / THE SEATTLE TIMES
Outline

• Opioid dependence treatment options
• Efficacy of treatment options
• Buprenorphine in primary care
• Ideal candidates for buprenorphine
• Unique opportunities for buprenorphine
• Barriers to success
• The future of medication assisted treatment
Treatment Options

• Agonist Therapy
  – Methadone
  – Buprenorphine
  – LAAM
  – Heroin Maintenance Programs
• Antagonist Therapy: Naltrexone
• Psychosocial Therapy
Treatment Options

• Agonist Therapy
  – Methadone
  – Buprenorphine
  – LAAM
  – Heroin Maintenance Programs

• Antagonist Therapy: Naltrexone

• Psychosocial Treatment
Efficacy of Buprenorphine

2014 Cochrane Review: 31 trials

- Buprenorphine vs Placebo
  - Retention
  - Suppression of illicit opioids in urinalysis

- Buprenorphine vs Methadone
  - Retention
  - Suppression of illicit opioids in urinalysis
Cochrane Review

• Buprenorphine vs Placebo:
  – Retention: Bup doses >2mg
  – Illicit opioid suppression in UA: Bup doses >16mg

• Buprenorphine vs Methadone:
  – Retention: Methadone more effective than flexible dosing buprenorphine
  – Illicit opioid suppression in UA: Methadone more effective than flexible dosing buprenorphine
Cochrane Review

Figure 4. Forest plot of comparison: Flexible dose buprenorphine versus flexible dose methadone, outcome: 1.1 Retention in treatment.
Making a Case for Buprenorphine

Safety of agonist therapy:
- 2006 New South Wales study
  - Overdoses in 9mo period
  - RR methadone 4.25

- Pharmacokinetics
  - Long acting full agonist
  - High affinity partial agonist
Making a Case for Buprenorphine

Patient attitudes:
- Reduced number of medical visits
- More convenient locations
- Removed from illicit drug markets often around methadone clinics
- Improved patient-provider relationships
- Improved sense of autonomy, support, and trust from their provider
- Reduced stigma

Positive patient-provider relationships are associated with positive addiction treatment outcomes.
## Who’s A Good Candidate?

<table>
<thead>
<tr>
<th>Factors indicating good outcome</th>
<th>Relative contraindications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription opioid addiction only</td>
<td>Dependence on other CNS depressants</td>
</tr>
<tr>
<td>Patient highly motivated</td>
<td>Multiple previous treatments with frequent relapses</td>
</tr>
<tr>
<td>History of reliability and compliance</td>
<td>Severe opioid addiction</td>
</tr>
<tr>
<td>High functional level: employment/housing</td>
<td>High risk environment for relapse</td>
</tr>
<tr>
<td>Supportive psychosocial environment</td>
<td>Poor support system</td>
</tr>
</tbody>
</table>
Who’s A Good Candidate?

TABLE 2. Linear Regression Analysis for Predictable Variables for Noncompliance With Prescribed Buprenorphine

<table>
<thead>
<tr>
<th>Predictable Variable</th>
<th>Standard Coefficient</th>
<th>T Value</th>
<th>One-Sided P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>0.14</td>
<td>1.50</td>
<td>0.07</td>
</tr>
<tr>
<td>UDS—marijuana</td>
<td>0.24</td>
<td>2.11</td>
<td>0.02</td>
</tr>
<tr>
<td>UDS—benzodiazepines</td>
<td>0.24</td>
<td>2.11</td>
<td>0.02</td>
</tr>
</tbody>
</table>

$F = 3.08; P = 0.03.$
UDS, urine drug screen.

TABLE 3. Linear Regression Analysis for Predictable Variables for Noncompliance With Prescribed Buprenorphine

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<th>Standard Coefficient</th>
<th>T Value</th>
<th>One-Sided P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatric comorbidity</td>
<td>−0.26</td>
<td>−2.21</td>
<td>0.015</td>
</tr>
</tbody>
</table>

$F = 4.88; P = 0.03.$
Who’s A Good Candidate?

• Targeted marketing to the private sector
• Private Clinics, Out-of-Pocket, Privately Insured
• Caucasian, Employed, “Stable” patients
Unique Opportunities within the “Safety Net”

• Buprenorphine in Public Sector Healthcare
• Specific characteristics that are especially suited for low-income patient population
• Local/Regional incentives:
  – Medicaid formularies
  – State level media campaigns
  – Prescriber support networks
Buprenorphine: Reaching Vulnerable Populations

- Chronic Disease Management
- New York City Harm Reduction Pilot 2005
- Past Incarceration/Recent Release
- San Francisco Department of Public Health
- HIV Treatment
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Chronic Disease Management

Table 2 New and established diagnoses, treatment status at initial visit, and initiation of treatment within one year

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Established Diagnoses (%)</th>
<th>New Diagnoses (%)</th>
<th>Receiving Treatment at Initial Visit (% of established diagnoses)</th>
<th>Treatment Initiated: new and established diagnoses (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatric</td>
<td>78 (46%)</td>
<td>9 (5%)</td>
<td>33 (20%)</td>
<td>44 (77%)</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>62 (37%)</td>
<td>12 (7%)</td>
<td>0 (0%)</td>
<td>2 (3%)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>28 (17%)</td>
<td>15 (9%)</td>
<td>10 (36%)</td>
<td>32 (76%)</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>9 (5%)</td>
<td>10 (6%)</td>
<td>4 (44%)</td>
<td>14 (74%)</td>
</tr>
<tr>
<td>HIV</td>
<td>7 (4%)</td>
<td>0 (0%)</td>
<td>1 (14%)</td>
<td>2 (29%)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>4 (2%)</td>
<td>3 (2%)</td>
<td>2 (50%)</td>
<td>5 (71%)</td>
</tr>
<tr>
<td>Other</td>
<td>27 (16%)</td>
<td>5 (3%)</td>
<td>19 (119%)</td>
<td>11 (34%)</td>
</tr>
<tr>
<td>Total</td>
<td>215 (74%*)</td>
<td>54 (28%*)</td>
<td>69 (32%)</td>
<td>110 (41%)</td>
</tr>
</tbody>
</table>

*Percentage with one or more diagnoses.
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NYC Harm Reduction Model

Opioid maintenance treatment as a harm reduction tool for opioid-dependent individuals in NYC: the need to expand access to buprenorphine in marginalized populations

Sharon Stancliff¹, Herman Joseph¹,², Terry Furst³, Chunki Fong³, Sandra D. Comer⁴, and Perrine Roux⁴,⁵
¹Harm Reduction Coalition, NYC
²National Development and Research Institutes, NDRI, NYC
³John Jay College of Criminal Justice of The City University of NY
⁴Substance Use Research Center, NYSPI, Columbia University, New York, USA
⁵INSERM, U912 (SE4S), Marseille, France

Abstract

The aim of this pilot study was to assess the effectiveness of buprenorphine among marginalized opioid dependent individuals in terms of retention in and cycling in and out of a harm-reduction program. This pilot study enrolled 100 participants and followed them from November 2005 to July 2008. The overall proportion of patients retained in the program at the end of 3, 6, 9, and 12 months was 68%, 63%, 56%, and 42%, respectively. This pilot study demonstrated that buprenorphine could be successfully used to treat marginalized heroin users.
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## Recent Incarceration/Release

### Treatment Outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>BUP (n=60)</th>
<th>Methadone (n=56)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed treatment in jail</td>
<td>82%</td>
<td>75%</td>
<td>ns</td>
</tr>
<tr>
<td>Reported to assigned treatment modality after release(^d)</td>
<td>48%</td>
<td>14%</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Intended to continue treatment after release(^b)</td>
<td>93%</td>
<td>44%</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Showed at a medication-assisted treatment provider after release</td>
<td>48%</td>
<td>23%(^c)</td>
<td>&lt;.005</td>
</tr>
<tr>
<td>Re-incarceration at Rikers</td>
<td>40%</td>
<td>50%</td>
<td>ns</td>
</tr>
</tbody>
</table>
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San Francisco
Department of Public Health

FIGURE 1
OBOT Buprenorphine Pilot Treatment Retention Over One Year (n = 57)

Retention Rate

100.0%  89.5%
90.0%  75.4%
80.0%  75.4%
70.0%  61.4%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%

Months from Enrollment

Retention dropped significantly (p < .001) from one to three months and one month to one year.

FIGURE 2
Opioid Use Over Time: Positive Toxicology Screens per Patient Over Time (n = 50)

% Positive Per Patient

100.0%  62.0%
90.0%  58.0%
80.0%  30.0%
70.0%  18.2%
60.0%  21.3%
50.0%  13.6%
40.0%
30.0%
20.0%
10.0%
0.0%

Time from Enrollment

Baseline 2–30 days 1–6mos 6–12mos

Morphine Methadone
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HIV Treatment

Figure 3.
Comparison of initiating antiretroviral therapy and viral suppression outcomes among subjects not on antiretroviral therapy at baseline: stratified analysis among subjects retained on buprenorphine/naloxone for three or more quarters. Compared to baseline, $P \leq 0.05$ for all comparisons.
Barriers to Success

- Access
- Time
- Comfort
The Future...

• Harm Reduction
• Depot/Implant
Resources

- Buprenorphine Wavier
- June 2015 Practice Update
- PCSS-B Mentor Site
- Buprenorphine Rounds (Cherry Hill)
References
Thank you!

Questions?