ADDICTION MEDICINE FOR THE GENERAL INTERNIST:

A SNAPSHOT

ADAM J. GORDON, MD MPH FACP DFASAM
PROFESSOR OF MEDICINE AND PSYCHIATRY
UNIVERSITY OF UTAH SCHOOL OF MEDICINE

CHIEF OF ADDICTION MEDICINE
SALT LAKE CITY VA HEALTHCARE SYSTEM
DISCLOSURES

• I have no personal fiduciary conflicts of interest
• I work full time for the University of Utah and Department of Veterans Affairs
• The views expressed in this presentation are solely my own and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government or any other university or organization
OUTLINE

1. Why should internists be concerned
2. Vexing issue: pain and addiction – current thoughts and policy implications
3. Success at access to medication treatment using buprenorphine for opioid use disorder
4. Pithy thoughts to help drive the policy debate...
1. Why should internists be concerned
2. Vexing issue: pain and addiction – current thoughts and policy implications
3. Success at access to medication treatment using buprenorphine for opioid use disorder
4. Pithy thoughts to help drive the policy debate...
OVERDOSE DEATHS IN THE US

Overdose Deaths Involving Opioids, United States, 2000-2015

- Any Opioid
- Commonly Prescribed Opioids (Natural & Semi-Synthetic Opioids and Methadone)
- Heroin
- Other Synthetic Opioids (e.g., fentanyl, tramadol)

YOUTH: SOME STAGGERING NUMBERS

~ 70% of high school students tried alcohol
~ 50% will have taken an illegal drug
~ 40% will have smoked a cigarette

~ 14%-20% will have used a prescription drug for a nonmedical purpose in prior year
  – 72% of those with non-medical use obtained them from home (6% from friends)

Johnston LD, et.al. Monitoring the Future National results on Adolescent drug use: Overview of Key findings, 2013
NIH/NIDA, Principles of Adolescent Substance Use Disorder Treatment: A Research-Based Guide, 2014
Ontario Student Drug Use and Health Survey, 2011
ADDICTION TREATMENT BY AGE

SAMHSA, Center for Behavioral Statistics and Quality, NSDUH, 2013
NIH/NIDA, Principles of Adolescent Substance Use Disorder Treatment: A Research-Based Guide, 2014
## The Need to Screen, Assess, and Treat

### Table 2. Actual Causes of Death in the United States in 1990 and 2000

<table>
<thead>
<tr>
<th>Actual Cause</th>
<th>No. (%) in 1990*</th>
<th>No. (%) in 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>400 000 (19)</td>
<td>435 000 (18.1)</td>
</tr>
<tr>
<td>Poor diet and physical inactivity</td>
<td>300 000 (14)</td>
<td>400 000 (16.6)</td>
</tr>
<tr>
<td>Alcohol consumption</td>
<td>100 000 (5)</td>
<td>85 000 (3.5)</td>
</tr>
<tr>
<td>Microbial agents</td>
<td>90 000 (4)</td>
<td>75 000 (3.1)</td>
</tr>
<tr>
<td>Toxic agents</td>
<td>60 000 (3)</td>
<td>55 000 (2.3)</td>
</tr>
<tr>
<td>Motor vehicle</td>
<td>25 000 (1)</td>
<td>43 000 (1.8)</td>
</tr>
<tr>
<td>Firearms</td>
<td>35 000 (2)</td>
<td>29 000 (1.2)</td>
</tr>
<tr>
<td>Sexual behavior</td>
<td>30 000 (1)</td>
<td>20 000 (0.8)</td>
</tr>
<tr>
<td>Illicit drug use</td>
<td>20 000 (&lt;1)</td>
<td>17 000 (0.7)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1 060 000 (50)</strong></td>
<td><strong>1 159 000 (48.2)</strong></td>
</tr>
</tbody>
</table>

*Data are from McGinnis and Foege. The percentages are for all deaths.
RECOGNITION OF PROBLEM

• In primary care clinic:
  – 58% have any addiction history
  – 50% have had a mental health diagnosis
  – 26% have chronic pain

• Addiction treatment services are (generally) swamped and provide one modality of treatment

• Patients may prefer primary care environments for addiction

• Need for provision of alternative approaches to Addiction, Pain and Addiction, and the “vulnerable” patient
ADDICTION DISORDERS ARE TREATABLE LIKE ANY OTHER CHRONIC ILLNESS

• Type 1 Diabetes
  – 30% to 50% relapse each year requiring additional medical care
  – Significant societal consequences
• Hypertension and Asthma
  – 50% to 70% relapse each year requiring additional medical care
  – Significant societal consequences
• Alcohol and Other Drug Diseases
  – 40% to 60% relapse each year
  – Significant societal consequences
  – Few patients receive treatment!

Why the difficulty in engagement and treatment of addiction? Why is it so vexing for health care providers to treat addiction?
PRIMARY CARE APPROACH

• Major push has been to screen for hazardous alcohol use in primary care
• Emerging literature regarding how to screen for drug/prescription drug problems
• Push for collaborative and integrative health care models
• Push to consider pharmacotherapy for all patients identified as having addictions

• SBIRT
  – Screening
    • assessment
  – Brief Interventions
    • or “treatment”
  – Referral to Treatment processes
DO WHAT ABOUT ADDICTIVE DISORDERS?

THEY ARE TREATABLE!

YES! by “normal” health care providers

*Public Health Reviews, Vol. 35, No 2*

Can Substance Use Disorders be Managed Using the Chronic Care Model?
Review and Recommendations from a NIDA Consensus Group

A. Thomas McLellan, PhD,
Joanna L. Starrels, MD, MS,
Betty Tai, PhD,
Adam J. Gordon, MD, MPH,
Richard Brown, MD, MPH,
Udi Ghitza, PhD,
Marc Gourevitch, MD,
Jack Stein, PhD,
Marla Oros, RN, MS,
Terry Horton, MD,
Robert Lindblad, MD,
Jennifer McNeely, MD, MS

OUTLINE

• Why should internists be concerned
• Vexing issue: pain and addiction – current thoughts and policy implications
• Success at access to medication treatment using buprenorphine for opioid use disorder
  – Questionable that this new access to care is truly quality of care...
• Pithy thoughts to help drive the policy debate...
THE ADDICTION-PAIN PROBLEM

• Telling the difference between a pain patient and a patient with drug use is not easy
  – What (really) is the pain?
  – Are their behavioral or mental health components
  – The patient may be new to a provider
  – The patient may be familiar to your peers – misconceptions and perceptions

• The provider may not be comfortable
  – in identifying and managing pain syndromes
  – in identifying and managing addictions
THE PAIN-ADDICTION PRIMARY CARE CONUNDRUMS

• PCPs are confronted with patient challenges:
  – Prescription opioid misuse, opioid use disorders, and opioid related morbidity and death are increasing
  – Increased attention to pain and addressing pain
  – Increased mental health co-morbidity

• PCPs are confronted with assessment and treatment challenges:
  – Lack of education on opioid (and pain) assessment, treatment, referral
  – No uniform screening procedures (no evidence either)
  – Relative lack of access to pain/addiction referral resources
  – Patient preferences
  – Role out of collaborative care models (VEXING!)
THE NEW: CDC GUIDELINE

CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016
GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN

IMPROVING PRACTICE THROUGH RECOMMENDATIONS

CDC’s Guideline for Prescribing Opioids for Chronic Pain is intended to improve communication between providers and patients about the risks and benefits of opioid therapy for chronic pain, improve the safety and effectiveness of pain treatment, and reduce the risks associated with long-term opioid therapy, including opioid use disorder and overdose. The Guideline is not intended for patients who are in active cancer treatment, palliative care, or end-of-life care.

DETERMINING WHEN TO INITIATE OR CONTINUE OPIOIDS FOR CHRONIC PAIN

1. 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.

2. 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.

3. 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.

OPIOID SELECTION, DOSAGE, DURATION, FOLLOW-UP, AND DISCONTINUATION

CLINICAL REMINDERS

- 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/IR opioids for acute pain
- Follow-up and re-evaluate risk of harm; reduce dose or taper and discontinue if needed
- When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.
- 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 >50 MME/day or carefully justify a decision to titrate dosage to >50 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. These days or less will often be sufficient; more than seven days will rarely be needed.
- Clinicians should evaluate benefits and harms with patients within 1 to 4 weeks of starting opioid therapy for chronic pain or 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 consider the use of other therapies and work with patients to taper opioids to lower dosages or to taper and discontinue opioids.

ASSESSING RISK AND ADDRESSING HARMS OF OPIOID USE

8. 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.

9. Clinicians should review the patient’s history of controlled substance prescriptions using state prescription drug monitoring program (PMP) 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 PMP data when starting opioid therapy for chronic pain and periodically during opioid therapy for chronic pain, ranging from every prescription to every 3 months.

10. 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.

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

12. 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.
Too many people are dying. The situation’s out of control. I kind of thought they were helping you, but right now I have to stop your Lortab pills.

What did I do?
WHAT HAPPENED?

PILL CONTROL

- Quality Metrics on dose
  - Dose >120 (NCQA)
- Payer restrictions
- Prescription Drug Monitoring
  - No warrant needed
- Pharmacy Red Flags
- DEA and law enforcement
- Medical Board Rules
- Employer Rules
- FDA plans “new hoops” for doctors
PILL CONTROL: THE POLICY RESPONSE

Laws Setting Limits on Certain Opioid Prescriptions

- **Statutory limit: 14 days**
- **Statutory limit: 7 days**
- **Statutory limit: 5 days**
- **Statutory limit: 3-4 days**
- **Statutory limit: Morphine Milligram Equivalents (MME)**
- **Direction or authorization to other entity to set limits or guidelines**
- **No limits**

**Source:** NCSL, StateNet

* North Carolina’s 5-day limit is for acute pain. The state also set a 7-day limit for post-operative relief.

** Maryland requires lowest effective dose in a quantity not greater than that needed for expected duration of pain.

Summer 2017, National Conference of State Legislatures
URGENT ANNOUNCEMENT
FEBRUARY 21, 2018

Beginning immediately our intractable pain and palliative care clinic cannot authorize any opioids to be paid by Medicare. This includes any health plan to which you have turned over your Medicare benefits.

The Federal Medicare Program has just placed all internists, like myself, on a "Quota Opioid System". We can only prescribe a limited amount each year that will be paid by Medicare. My quota has already been exceeded. 

Beginning at your next clinic visit you will have to self-pay for opioids as a note will be put on your prescription to this effect. Medicare will continue to pay for your non-opioid medications.

We highly recommend you contact your health plan for a pain specialist who can prescribe opioids to you as we believe we will have to soon discharge any patient who has Medicare.

I highly disagree with this policy, but it is now a Federal government policy.
Decline in Opioid Prescriptions

Prescriptions per capita

Alabama
West Virginia
Oklahoma
Ohio
Pennsylvania
Rhode Island
South Dakota
New Hampshire
Texas
New York
California

Hydrocodone Prescriptions Falling

Source: QuintilesIMS Institute

% of patients receiving opioid Rx

Source: IMS Health
PROPOSED: CMS PROPOSAL FOR 2019

• 5 or 7 day limit for “opioid naïve” patients: no exception

"We are proposing important new actions to reduce seniors’ risk of being addicted to or overdoing it on opioids while still having access to important treatment options," said Demetrios Kouzoukas, CMS deputy administrator and director of the Center for Medicare, on a phone call with reporters. "We believe these actions will reduce the oversupply of opioids in our communities."

Med Page Today, February 1, 2018

• Deny payment at point of sale if cumulative MED >90
  – Allow prior authorization
  – Exceptions: hospice, metastatic cancer
### WHAT ABOUT DOSE?
**PREDICTION MODEL FOR 2 YEAR RISK OF OPIOID OVERDOSE AMONG PATIENTS ON OPIOIDS**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Unadjusted HR</th>
<th>Adjusted HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age +1 yr</td>
<td>0.93 (0.88-0.98)</td>
<td>0.93 (0.89-0.98)</td>
</tr>
<tr>
<td>Mental Health Dx</td>
<td>4.2 (2.9-6.1)</td>
<td>3.4 (2.3-5.0)</td>
</tr>
<tr>
<td>Psychotropic Rx</td>
<td>2.8 (1.9-4.3)</td>
<td></td>
</tr>
<tr>
<td>Substance abuse/dependence</td>
<td>6.0 (4.0-9.0)</td>
<td>3.5 (2.3-5.4)</td>
</tr>
<tr>
<td>Tobacco</td>
<td>2.3 (1.6-3.3)</td>
<td>1.5 (1.0-2.3)</td>
</tr>
<tr>
<td>Hx opioid Rx in prior year</td>
<td>1.4 (1.0-2.0)</td>
<td></td>
</tr>
<tr>
<td>Long-acting opioid</td>
<td>2.5 (1.3-4.9)</td>
<td>2.0 (1.0-3.9)</td>
</tr>
<tr>
<td>Daily opioid +10 MME</td>
<td>1.01 (0.99-1.03)</td>
<td></td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>2.8 (1.0-7.6)</td>
<td></td>
</tr>
</tbody>
</table>

Glanz, 2018. JGIM. ~43,000 Kaiser patients who qualified as chronic opioid recipients, 2006-2014

_Not an independent predictor!_
STRONG DIAGNOSTIC AND HEALTH CARE EVENT RISK FACTORS FOR OVERDOSE OR SUICIDE-RELATED EVENTS

<table>
<thead>
<tr>
<th>Risk factor</th>
<th>Odds Ratio</th>
<th>Model Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior overdose or suicide-related event</td>
<td>23.1</td>
<td>2.62</td>
</tr>
<tr>
<td>Detoxification treatment</td>
<td>18.5</td>
<td>.06</td>
</tr>
<tr>
<td>Inpatient mental health treatment</td>
<td>16.6</td>
<td>1.0</td>
</tr>
<tr>
<td>Sedative use disorder diagnosis</td>
<td>11.2</td>
<td>.23</td>
</tr>
<tr>
<td>Stimulant use disorder diagnosis</td>
<td>8.1</td>
<td>.73</td>
</tr>
<tr>
<td>Opioid use disorder diagnosis</td>
<td>8.0</td>
<td>.31</td>
</tr>
<tr>
<td>Mixed substance use disorder</td>
<td>8.0</td>
<td>.33</td>
</tr>
<tr>
<td>Cannabis use disorder</td>
<td>5.9</td>
<td>.27</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>5.8</td>
<td>.82</td>
</tr>
<tr>
<td>Alcohol use disorder</td>
<td>5.3</td>
<td>.36</td>
</tr>
<tr>
<td>Other mental health disorder</td>
<td>5.7</td>
<td>.73</td>
</tr>
<tr>
<td>Major Depression</td>
<td>4.8</td>
<td>.61</td>
</tr>
<tr>
<td>Emergency Department visit</td>
<td>3.4</td>
<td>.72</td>
</tr>
<tr>
<td>Fall or accident</td>
<td>2.9</td>
<td>.44</td>
</tr>
<tr>
<td>PTSD</td>
<td>2.6</td>
<td>.34</td>
</tr>
<tr>
<td>Tobacco use disorder</td>
<td>2.2</td>
<td>.18</td>
</tr>
<tr>
<td>AIDS</td>
<td>2.2</td>
<td>.20</td>
</tr>
<tr>
<td>Liver Disease</td>
<td>2.2</td>
<td>.15</td>
</tr>
<tr>
<td>Other neurological disorder</td>
<td>2.1</td>
<td>.18</td>
</tr>
<tr>
<td>Electrolyte disorders</td>
<td>2.0</td>
<td>.19</td>
</tr>
</tbody>
</table>

Where is dose?
Since 2010: hi-dose Opioid Rx Down 48%
OD with natural/semisynthetic opioids (excluding heroin/fentanyl):
Down 0.04%

Overall Natural & Semisynthetic figures from CDC: https://www.cdc.gov/nchs/data/databriefs/db294_table.pdf#page=4
Excluding Heroin & Synthetics from National Center for Health Statistics NVSS, by Clayton Hale, American Enterprise Institute
DO THE CDC GUIDELINES MANDATE TAPERS?

CDC Rec #7  
(2016)

Regularly reassess

“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”

Evidence Type 4 (Lowest evidence)
Distribution of Overdose Deaths (n=842) According to Prescribed Dose, Among Veterans Prescribed Opioids in Fiscal Year 2013 (n=1,395,056)

- 68% of overdose deaths
- 77% had substance use disorder or mental health diagnosis
- 15%
- 17%

50 MME 90 MME

Data collected by VA PERC

©UNIVERSITY OF UTAH HEALTH, 2018
Patient Outcomes in Dose Reduction or Discontinuation of Long-Term Opioid Therapy: A Systematic Review

- Voluntary + well-run programs
- Dose reduction can be achieved for some patients
- Some may feel better
- "Very low quality evidence"

- May not apply to involuntary
- No prospective study of mandatory, involuntary opioid discontinuation
- Insufficient evidence on adverse events such as "overdose, switch to illicit opioids, onset of suicidality"
EDITORIAL

Will strict limits on opioid prescription duration prevent addiction? Advocating for evidence-based policymaking

Mallika L. Mundkur, MD, MPH\textsuperscript{a}, Adam J. Gordon, MD, MPH\textsuperscript{b,c}, and Stefan G. Kertesz, MD, MSc\textsuperscript{d,e}

\textsuperscript{a}Program on Regulation, Therapeutics, and Law (PORTAL), Division of Pharmacoepidemiology and Pharmacoconomics, Department of Medicine, Brigham and Women’s Hospital, Boston, Massachusetts, USA; \textsuperscript{b}Departments of Medicine, University of Utah School of Medicine, Salt Lake City, Utah, USA; \textsuperscript{c}Departments of Psychiatry, University of Utah School of Medicine, Salt Lake City, Utah, USA; \textsuperscript{d}Birmingham VA Medical Center, Birmingham, Alabama, USA; \textsuperscript{e}Department of Medicine, University of Alabama at Birmingham School of Medicine, Birmingham, Alabama, USA
OUTLINE

1. Why should internists be concerned
2. Vexing issue: pain and addiction – current thoughts and policy implications
3. Success at access to medication treatment using buprenorphine for opioid use disorder
4. Pithy thoughts to help drive the policy debate...
DSM 5 DEFINITION: OPIOID USE DISORDER

- Failure to fulfill role obligations at work, school, or home
- Recurrent use in hazardous situations
- Legal problems related to opioid use (GONE)
- Continued use despite substance-related social or interpersonal problems
- Tolerance
- Withdrawal/physical dependence
- Loss of control over amount of substances consumed
- Preoccupation with controlling substance use
- Preoccupation with substance use activities
- Impairment of social, occupational, or recreational activities
- Use is continued despite persistent problems related to substance use
- Craving or a strong desire to use a substance (NEW)

Criteria:
- 2-3 (mild)
- 4-5 (moderate)
- 6 or more (severe)
AUDIENCE INTERACTION:

Case: Does Joanne have an addiction?
ADDICTION IS A BRAIN DISEASE

Dopamine Pathways

Frontal cortex

Functions:
- Reward (motivation)
- Pleasure, euphoria
- Motor function (fine-tuning)
- Compulsion
- Perseveration

VTA

Nucleus accumbens

Seroitonin Pathways

Striatum

Substantia nigra

Functions:
- Mood
- Memory processing
- Sleep
- Cognition

Raphe nucleus

Hippocampus

NIDA
Medication-Assisted Therapies — Tackling the Opioid-Overdose Epidemic

Nora D. Volkow, M.D., Thomas R. Frieden, M.D., M.P.H., Pamela S. Hyde, J.D., and Stephen S. Cha, M.D.

The rate of death from overdoses of prescription opioids in the United States more than quadrupled between 1999 and 2010 (see graph), far exceeding the combined death toll from cocaine and heroin overdoses.¹ In 2010 alone, prescription opioids were involved in 16,651 overdose deaths, whereas heroin was implicated in 3036. Some 82% of the deaths due to prescription...
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Methadone</th>
<th>Buprenorphine</th>
<th>Naltrexone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand names</td>
<td>Dolophine, Methadose</td>
<td>Subutex, Suboxone, Zubsolv</td>
<td>Depade, ReVia, Vivitrol</td>
</tr>
<tr>
<td>Class</td>
<td>Agonist (fully activates opioid receptors)</td>
<td>Partial agonist (activates opioid receptors but produces a diminished response even with full occupancy)</td>
<td>Antagonist (blocks the opioid receptors and interferes with the rewarding and analgesic effects of opioids)</td>
</tr>
<tr>
<td>Use and effects</td>
<td>Taken once per day orally to reduce opioid cravings and withdrawal symptoms</td>
<td>Taken orally or sublingually (usually once a day) to relieve opioid cravings and withdrawal symptoms</td>
<td>Taken orally or by injection to diminish the reinforcing effects of opioids (potentially extinguishing the association between conditioned stimuli and opioid use)</td>
</tr>
<tr>
<td>Advantages</td>
<td>High strength and efficacy as long as oral dosing (which slows brain uptake and reduces euphoria) is adhered to; excellent option for patients who have no response to other medications</td>
<td>Eligible to be prescribed by certified physicians, which eliminates the need to visit specialized treatment clinics and thus widens availability</td>
<td>Not addictive or sedating and does not result in physical dependence; a recently approved depot injection formulation, Vivitrol, eliminates need for daily dosing</td>
</tr>
<tr>
<td>Disadvantages</td>
<td>Mostly available through approved outpatient treatment programs, which patients must visit daily</td>
<td>Subutex has measurable abuse liability; Suboxone diminishes this risk by including naloxone, an antagonist that induces withdrawal if the drug is injected</td>
<td>Poor patient compliance (but Vivitrol should improve compliance); initiation requires attaining prolonged (e.g., 7-day) abstinence, during which withdrawal, relapse, and early dropout may occur</td>
</tr>
</tbody>
</table>
BUPRENORPHINE PRODUCTS

• Buprenorphine IV (1981)  
  – Indication: **Pain**
• Buprenorphine (2002)  
  – Indication: **Opioid use disorder**
• Buprenorphine/Naloxone (2002)  
  – Indication: **Opioid use disorder**  
  – SL/Buccal Tablets and Film available
• Buprenorphine Patches (2010)  
  – Indication: **Pain**
• Buprenorphine Implants (2016)  
  – Indication: **Opioid use disorder**
• Buprenorphine Depot Injections (2018)  
  – Indication: **Opioid use disorder**
Buprenorphine works
OFFICE-BASED SETTINGS FOR ADDICTION

• Addiction treatment for can be provided in office-based settings similar to treatments for
  – Like other medical and mental health disorders
• Barriers to initiate or provide addiction care occur when providers in office-based settings attempt to make these environments “feel” like formal substance abuse treatment program environments
  – These environments are different!
  – It hard to replicate an addiction treatment environment
  – “Keep it simple” and “grow from experience”

Gordon AJ, et. al., Facilitators and barriers in implementing buprenorphine in the Veterans Health Administration. Psychol Addict Behav.2011
Implementation of buprenorphine in the Veterans Health Administration: Results of the first 3 years

Adam J. Gordon a,*, Jodie A. Trafton b,1, Andrew J. Saxon c,2, Allen L. Gifford d,3, Francine Goodman e,4, Vincent S. Calabrese e,5, Laura McNicholas f,6, Joseph Liberto g,7, for the Buprenorphine Work Group of the Substance Use Disorders Quality Enhancement Research Initiative (SUD QUERI) 8

• Take home points: from 2003-2005
  • Opioid Dependence increased 7.3% (to 26,859)
  • Veterans prescribed BUP increased from 53 to 739
  • 16 of 21 regional VA networks had prescribed any buprenorphine
  • Two VA regional networks accounted for 31% of buprenorphine prescriptions
IN THE VETERANS ADMINISTRATION...
Percentage Of US Population Living In Treatment Shortage Counties, By Rural-Urban Categories, 2002–11

MORE BUPRENORPHINE IMPROVES ACCESS

EXHIBIT 2

Percentage Of US Population Living In Counties With A Shortage Of Opioid Treatment Programs, A Shortage Of Waivered Physicians, And Treatment Shortage Counties, 2002–11

• Among 3,234 buprenorphine prescribers, 245,016 patients who received a new buprenorphine prescription:
  – Prescribers' median monthly patient census was 13 patients
  – the median episode duration was 53 days

| Table. Buprenorphine-Prescribing Physicians’ Monthly Patient Censuses |
|-------------------------------------------------|------------------|-----------------|-----------------|
| Monthly Patient Census, Median (IQR)            | Incident Rate Ratio (95% CI) | P Value |
| All prescribers (n = 3234)                      | 13 (5-36)       | NA              | NA              |
| State                                           |                  |                 |                 |
| California                                      | 7 (4-17)        | 0.69 (0.58-0.83) | <.001           |
| Florida                                         | 11 (4-30)       | 1.10 (0.91-1.33) | .32             |
| Massachusetts                                    | 22 (8-59)       | 1.87 (1.55-2.65) | <.001           |
| Michigan                                        | 11 (4-26)       | 1 [Reference]   |                 |
| New York                                        | 11 (4-27)       | 1.04 (0.87-1.25) | .66             |
| Pennsylvania                                    | 18 (6-46)       | 1.51 (1.25-1.82) | <.001           |
| Texas                                           | 10 (4-29)       | 1.05 (0.85-1.29) | .67             |
| Year Buprenorphine Treatment Episode Began      |                  |                 |                 |
| 2010                                            | 9 (4-22)        | 1 [Reference]   |                 |
| 2011                                            | 10 (4-27)       | 1.23 (1.20-1.26) | <.001           |
| 2012                                            | 12 (4-33)       | 1.41 (1.37-1.45) | <.001           |
| 2013                                            | 14 (5-37)       | 1.48 (1.43-1.53) | <.001           |
**Figure 1** Trajectories of the first-year treatment of buprenorphine. PDC = proportion of days covered. The average predicted PDC in each group is plotted with solid lines. The average observed PDC of individuals in each group is plotted with dashed lines.
PA MEDICAID OUTCOMES

• Six trajectories were identified:
  – 24.9% discontinued buprenorphine <3 months
  – 18.7% discontinued between 3 and 5 months
  – 12.4% discontinued between 5 and 8 months
  – 13.3% discontinued >8 months
  – 9.5% refilled intermittently
  – 21.2% refilled persistently for 12 months

• Persistent refill trajectories associated with:
  – 18% lower risk of all-cause hospitalizations
    • HR =0.82, (CI) = 0.70-0.95
  – 14% lower risk of ED visits
    • HR=0.85, 95% CI= 0.78-0.95

Lo-Ciganic W et. al. Association between Trajectories of Buprenorphine Treatment and Emergency Department and In-patient Utilization Addiction. 2016.
OUTLINE

1. Why should internists be concerned
2. Vexing issue: pain and addiction – current thoughts and policy implications
3. Success at access to medication treatment using buprenorphine for opioid use disorder
4. Pithy thoughts to help drive the policy debate...
PITHY COMMENTS

• Access to addiction care is complex and nuanced…
  – It may not be easy to mandate in large health systems

• Facilitating access is difficult and involves patient, provider, and system factors…

• Once access is obtained, can that care be longitudinal?
  – Addiction treatment services are generally episodic…
  – Chronic disease requires chronic treatment…

• We may be beyond access; will quality follow?
  – Defining quality is difficult and varies
  – Research can contradict policy implementation
    • (e.g., Medication Treatment with additional counseling)

• Addiction care in the US is highly regulated politicized
  – Addiction health care providers are not treated like endocrinologists
  – Patients with addiction are not treated like patients with diabetes
Adam J. Gordon MD MPH
adam.gordon@hsc.utah.edu
adam.gordon@va.gov