DISCLOSURE STATEMENT

No financial disclosures
LEARNING OBJECTIVES

• Identify risk factors for, signs and symptoms of, and co-occurring disorders with opioid use disorders.
• Understand how to diagnose opioid use disorders and risk stratify patients with chronic pain for development of opioid use disorder in primary care.
• Describe the components of an opioid risk assessment for patients with chronic pain.
First Specific Drug Associated with Initiation of Illicit Drug Use among Past Year Illicit Drug Initiates Aged 12 or Older: 2012

SAMSHA, National Survey on Drug Use & Health, 2012
How we think of addiction

How we think of dependence on opioid pain medication

Are they biologically any different?

Photographs: The Guardian
Substance Use Disorder: A chronic disease of the brain

• Outdated view:
  – moral failing, bad choice
• Modern, evidence-based view:
  – Genetic, Environmental, and pharmacologic factors predispose to chronic drug use
  – Leads to structural and functional disruption of motivation, reward, inhibitory control centers
• Dopaminergic, opioidergic, and stress response pathways
  – Turns drug use into an automatic, compulsive behavior (addiction)
  – Substances withdrawal produces profound negative reinforcement in order to avoid it

Hall, Lancet 2015
Koob, Neuropsychopharm 2001
Substance Use Disorders: Chronic Illness versus Moral Failing

Disease Activity

- HIV, HTN, DM
- SUBSTANCE USE DISORDER

Time

O’Connor, JAMA 1998
Lucas, JAIDS 2005
Whatever it's cause, when pain persists, it often causes secondary problems that can in turn facilitate distress and pain.
As a chronic condition, OUD shares similar challenges as persistent pain.
When OUD and pain co-occur they may reinforce one another. Need to address both to successfully treat pain.
CASE

LF is 58 yo male with chronic, deforming psoriatic arthritis, history of intravenous heroin administration, mechanical aortic and mitral valves from prior episode of endocarditis, resultant heart failure from valve mismatch, PTSD, depression, history of incarceration,

He is a life-long musician and lives in his own apartment.
CASE

- 5 years prior, LF was discharged from a hospitalization for heart failure precipitated during a relapse on heroin just months after release from 13 years in prison.
- He presented to establish for primary care. His chief complaint was pain from his psoriatic arthritis. He was specifically asking for opioids to help manage his pain.
- While in prison he had been on methadone up to 150 mg daily then switched to morphine which is what he was taking when released from prison.
One may ask...where to begin
WHICH INDIVIDUALS ARE MOST LIKELY TO BE PRESCRIBED OPIOIDS?

- Those with greater number of pain diagnoses
- Those with mental health and substance use disorders
Principle Risk Factors for Opioid Use Disorder

Good Predictors for Prescription Opioid Use Disorder

- Young age (less than 45 years)
- Personal history of substance abuse
- Family history of substance abuse
- Legal history
- Back pain, headache
- Mental health problems
- History of sexual abuse
- High dose of opioids

References:

Ives J, et al. BMC Health Serv Res. 2006 Apr 4;6:46.
WHY DOES ADVERSE SELECTION OCCUR?

• Providers want to help patients in pain and have few tools other than prescription pad

• Patients with mental health and substance use disorders and multiple pain problems are more distressed (pain and psychological symptoms) and more persistent in demanding opioid initiation and dose increases

• Providers write opioid prescriptions as a “ticket out of the exam room”

• Recipients of chronic opioids are also the most likely to abuse opioids

Present day:
LF is 58 yo male with chronic, deforming psoriatic arthritis, history of intravenous heroin administration, mechanical aortic and mitral valves from prior episode of endocarditis, resultant heart failure from valve mismatch, PTSD, depression, history of incarceration, stable for 5 years on regimen of morphine SR. His family was "full of alcoholics."

He is a life-long musician and lives in his own apartment.
Initial Evaluation of Opioid Use Disorder for the PCP

- Normalize the process as part of Universal Precautions
- Appreciate the fear and stigma associated with opioid use disorder in patients with chronic pain
Initial Evaluation of OUD for PCPs

• Confirm and describe the chronic pain condition
  • Is a diagnosis possible?
  • Would further evaluation prove beneficial?

• Confirm functional improvement with pain medication
  • In the absence of functional improvements, the patient may be experiencing therapeutic failure of opioids
  • No functional benefit = lack of opioid benefit, so why would opioids be continued?

• Confirm and describe that appropriate treatment has been offered or failed
  • Are there treatments that could be optimized?
  • Have non-medication options been tried and/or failed?
Initial Evaluation of OUD for PCPs

• Describe patient's side effects from the medication
  • Constipation, aspiration, overdose, sleep apnea, respiratory depression, mental clouding, etc…

• Describe patient's relationship with healthcare providers and any concerning behavior
  • Describe prescription history: lost medications? Stolen medications? Frequent ED visits? Concerning reports from loved ones?

• Describe patient’s substance use disorder history or current substance use history

• Describe concomitant psychosocial factors
  • Depression, sexual use history, marital, financial or job stress
  • PHQ-9, GAD, Pain Catastrophizing Scale, Chronic Pain Self-Efficacy

Recognizing Opioid Use Disorder

Before prescribing

- Screening Instruments
  - Opioid Risk Tool (ORT)
    - Provider administered
    - 5 items
  - Screen and Opioid Assessment for Patients with Pain-Revised (SOAPP-R)
    - Patient administered
    - 24 items
  - Point of care urine toxicology screens
  - PDMP
Diagnostics

- Urine Drug Testing
- Including evaluation of alcohol use (ethyl glucuronide)
- Random Pill Counts
- Prescription Drug Monitoring Data
- Review of medical records
- Discuss case with other prescribers, if applicable
Outcome of initial evaluation

• The initial PCP evaluation will provide the basis for a risk/benefit determination

• This initial evaluation will place a focus not only on concerning behavior, but also on pain and pain care
  • You can have pain and opioid use disorder
  • Treating pain in the setting of opioid use disorder is not likely be effective and can be very risky
  • Treating opioid use disorder without treating pain is also not likely to be effective

Based on initial evaluation, consider referral for diagnosis of an opioid use disorder if you do not feel comfortable making it
What next?

- Make a risk-benefit ratio judgement of the treatment, not the patient.
- If the risks outweigh the benefit, refer the patient and stop or taper opioids.
- Continue to treat pain with non-opioid treatments.
- Encourage the patient to seek medication assisted treatment (i.e. methadone maintenance treatment or buprenorphine treatment).
Case

- LF Engaged in primary care.
  - Was not given opioids initially.
  - Rx non-opioid pharmacotherapies.
  - Engaged in MH, Occupational Therapy, etc...
- After several follow-up appointments and case review by clinic's controlled substances review committee, months after first being seen, LF was initiated on MS Contin.
One may REASONABLY ask...does this make sense?

Should this child be wearing flippers on dry land?

Should LF be prescribed opioids given his history?

Do the benefits of initiating opioid therapy for this patient outweigh the risks?
HOW CAN WE DETERMINE RISK?

• Use a Risk-Benefit Framework

NOT...

• Is the patient good or bad?
• Does the patient deserve opioids?
• Should this patient be punished or rewarded?
• Should I trust the patient?

RATHER...

Judge the **opioid treatment** - NOT the patient

Do the benefits of opioid treatment outweigh the untoward effects and risks for this patient (or society)?
Validated Questionnaires for Opioid Use Disorder Risk

ORT - Opioid Risk Tool
SOAPP - Screener and Opioid Assessment for Patients with Pain
STAR - Screening Tool for Addiction Risk
SISAP - Screening instrument for Substance Abuse Potential
PDUQ - Prescription Drug Use Questionnaire

No “Gold Standard”, Not diagnostic
All lack rigorous testing in primary care populations
# OPIOID RISK TOOL

**For LF**

<table>
<thead>
<tr>
<th>Item</th>
<th>Mark each box that applies</th>
<th>Item Score If Female</th>
<th>Item Score If Male</th>
</tr>
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<tbody>
<tr>
<td>1. Family History of Substance Abuse</td>
<td>Alcohol [ ]</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Illegal Drugs [x]</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prescription Drugs [ ]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2. Personal History of Substance Abuse</td>
<td>Alcohol [ ]</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Illegal Drugs [x]</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Prescription Drugs [x]</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>3. Age (Mark box if 16 – 45)</td>
<td>[ ]</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4. History of Preadolescent Sexual Abuse</td>
<td>[ ]</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>5. Psychological Disease</td>
<td>Attention Deficit Disorder, Obsessive Compulsive Disorder, Bipolar, Schizophrenia [ ]</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Depression [x]</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL** 13

**Total Score Risk Category**
- Low Risk 0 – 3
- Moderate Risk 4 – 7
- High Risk ≥8
What we know about opioids for chronic pain?

- Many RCTs showing short-term efficacy for CNCP, max 30% relief with mixed functional benefit, poor work outcomes
- ZERO RCTs showing >1 year effectiveness data
- A multitude of other harms including worsening of MH, hyperalgesia, etc...
- Opioid use is concentrated in CNCP population (5% use 70% of opioids)*
- Dose related mortality >100 MED

Opioids and Societal Harm

America’s Opioid Crisis

The stunning spread of the opioid painkiller and heroin epidemic in two maps over 10 years.

Drug mortality, 2005

Drug mortality, 2014

A challenge for cities, counties and states

The rise in prescription opioid and heroin addiction is causing an increase in overdoses as well as more cases of HIV/AIDS and hepatitis C.

Deaths from opioids

78

Americans die every day from an opioid overdose.

Rural

Urban

25,234

15,091

National overdose deaths

All prescription drugs

Male

Female

2001

2014

Powered by Socrata
Case

• Over the subsequent 5 years after initiation of morphine in the primary care setting, LF showed some aberrant behavior:
  • getting tramadol prescriptions from his rheumatologist (Oregon Prescription Drug Monitoring Program; despite multiple care coordination attempts by PCPs to discourage specialist pain prescribing) which eventually stopped.
  • Episodic alcohol drinking.
  • LF stayed fairly functional, engaged in care however was not working.
  • Was on 135 mg morphine daily.
One may ask...

- How can you identify opioid use disorder in a patient with chronic pain receiving chronic opioids?
"Pain Killers!"

"Nothing else matters"

"They make me feel dead inside"

"I forget about the pain"

"Gives me energy"
The complexity of chronic pain
Continuum of Problematic Opioid Use

Mild indiscretion → Repeated misuse → Opioid use disorder → Severe Opioid use disorder (i.e. addiction)
GRAY ZONE

ADDICTED
Meets DSM criteria for opioid use disorder

NOT ADDICTED
- No lost prescriptions
- No ER visits
- No early prescriptions
- No requests for dose escalation
- No UDT aberrancies
- No doctor shopping (PMP)

Weimer, PCSS-O
Opioid Use Disorder in clinical practice

- The 4 C’s
- Loss of Control
- Compulsive use
- Continued use despite harms
- Craving

Aberrant Medication-Taking Behavior

- A spectrum of patient behaviors that may reflect misuse:
  - Health care use patterns (e.g., inconsistent appointment patterns)
  - Signs/symptoms of drug misuse (e.g., intoxication)
  - Emotional problems/psychiatric issues
  - Lying and illicit drug use
  - Problematic medication behavior (e.g., Non-adherence)

- Implications
  Concern comes from the “pattern” or the “severity”

Butler et al. Pain. 2007
SIGNS AND SYMPTOMS OF OPIOID DEPENDENCE

- Track marks
- Irritation of the nose lining or perforated nasal septum
- Pupillary constriction
- Dry mouth, constipation, sexual dysfunction, or irregular menses
- Mood swings, depression, anger, irritability
- Marital problems
- Missing school or work
- Poor performance at school or work
- Financial problems, eg: large recent debt
- Social isolation, loss of friendships
Associated conditions

- HIV
- Hepatitis B and C
- Endocarditis or other occult infections
- Abscess or cellulitis
- Others: TB, Syphilis, STDs
- Psychiatric disorders in 40%
  - The most common are depression, anxiety disorders, bipolar disorder, and conduct disorder
  - High rates of childhood physical and sexual abuse
- Other drug dependencies
  - Alcohol dependence 40-70%
  - Cannabis dependence 20-50%
  - Cocaine dependence 65-80%
### Opioid Withdrawal Assessment

<table>
<thead>
<tr>
<th>Grade</th>
<th>Symptoms / Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Anxiety, Drug Craving</td>
</tr>
<tr>
<td>1</td>
<td>Yawning, Sweating, Runny nose, Tearing eyes, Restlessness Insomnia</td>
</tr>
<tr>
<td>2</td>
<td>Dilated pupils, Gooseflesh, Muscle twitching &amp; shaking, Muscle &amp; Joint aches, Loss of appetite</td>
</tr>
<tr>
<td>3</td>
<td>Nausea, extreme restlessness, elevated blood pressure, Heart rate &gt; 100, Fever</td>
</tr>
<tr>
<td>4</td>
<td>Vomiting / dehydration, Diarrhea, Abdominal cramps, Curled-up body position</td>
</tr>
</tbody>
</table>

**Clinical Opiate Withdrawal Scale (COWS):** pulse, sweating, restlessness & anxiety, pupil size, aches, runny nose & tearing, GI sx, tremor, yawning, gooseflesh (score 5-12 mild, 13-24 mod, 25-36 mod sev, 36-48 severe)
Enduring adaptation produced by established behaviors: Opioid use disorder criteria may be different for pain patients on chronic opioids

- For the illicit user
  - Procurement behaviors

- For the patient with pain – much more complex
  - Continuous opioid therapy may prevent opioid seeking
  - Memory of pain, pain relief and possibly also euphoria
  - Even if the opioid seeking appears as seeking pain relief, it becomes an adaptation that is difficult to reverse

It is hard to distinguish between drug seeking and relief seeking
Complexity of Opioid Use Disorder and Pain

- Painful craving
- Conditioned withdrawal
- Rebound pain associated with subclinical withdrawal
- Tolerance or hyperalgesia
- Medical procedures and the pursuit of drugs
- Multiple controlled medications
Opioid seeking behaviors

Dependence/addiction develops through pain treatment
- Pestersing reluctant doctors
- Using opioid to treat pain
- Predominant symptom of withdrawal - pain

Dependence/addiction develops through recreational drug use
- Need to procure opioid
- Often use paraphernalia
- Predominant symptom of withdrawal - anhedonia

DSM Criteria
- Social Disruption
- Loss of control over use
- Continued use despite knowledge of harm
- (Craving) (may not be manifest until off)

Do not accept that anything is wrong other than pain
Accept that they have an opioid use disorder
From: DSM-5 Criteria for Substance Use Disorders (SUD): Recommendations and Rationale

<table>
<thead>
<tr>
<th>Hazardous use</th>
<th>DSM-IV Abuse</th>
<th>DSM-IV Dependence</th>
<th>DSM-5 Substance Use Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social/interpersonal problems related to use</td>
<td>X</td>
<td>–</td>
<td>X</td>
</tr>
<tr>
<td>Neglected major roles to use</td>
<td>X</td>
<td>–</td>
<td>X</td>
</tr>
<tr>
<td>Legal problems</td>
<td>X</td>
<td>–</td>
<td>X</td>
</tr>
<tr>
<td>Withdrawald</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Tolerance</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Used larger amounts/longer</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Repeated attempts to quit/control use</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Much time spent using</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Physical/psychological problems related to use</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Activities given up to use</td>
<td>–</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

If tolerance and withdrawal are the only two criteria fulfilled then the patient does not have an OUD

DSM-5 criteria: 2-3 mild SUD, 4-5=moderate SUD, >6 = severe SUD
Recognizing Opioid Use Disorder in Someone Already Prescribed Opioids

- Screening Tools
  - Current Opioid Misuse Measure (COMM™)
    - Self-report
    - Identifies high risk for current aberrant medication-taking behavior, but not diagnostic
  - Screening Tool for Addiction Risk (STAR)
    - Self-report
    - Corresponds to DSM-IV criteria
- Random Urine Drug Testing
- Consider alcohol use (ethyl glucuronide)
- Random Pill Counts
- Prescription Drug Monitoring Data (PDMP)
- Review of medical records for new patients
- Discussions with other prescribers, family members
Current Opioid Misuse Measure (COMM™)

- One questionnaire that may be helpful, though needs more rigorous testing
- 17 item self report for ongoing opioid risk
- Questions based on 6 primary concepts underlying medication misuse
- Helps to identify patients at high risk for current aberrant medication-taking behavior
- A high score raises concern for opioid use disorder, but is NOT diagnostic
- Final diagnosis made based on DSM-V criteria

Available at http://www.opioidrisk.com/node/946
Screening Tool for Addiction Risk (STAR)

- Consists of 14 True/False questions
- Validated by literature, specialists in pain and addiction medicine
- Corresponds to DSM IV Criteria
- Interview format
- Significant Predictor:
  - Have you ever been treated in a drug or alcohol rehabilitation facility?
    - Had positive predictive value of 93%
    - Negative predictive value of 5.8%

Treating Pain Patients at Risk: Evaluation of a Screening Tool in Opioid-Treated Pain Patients With and Without Addiction
Case

- 9 months ago LF began to lose weight, playing the guitar on the corner for extra cash.
- About the same time that he began to lose weight he had begun exploring past painful memories of abuse in hopes of improving his PTSD symptoms.
- He admitted to using heroin ~3 months ago and was transitioned to buprenorphine.
- Buprenorphine was not effective and needed to be switched to methadone.
Conclusions

• Addiction is a chronic relapsing disease of brain reward, motivation, memory and related circuitry. It is characterized by compulsive drug seeking and use, accompanied by functional and molecular changes in the brain. It is not a character flaw or lack of willpower.

• There are specific risk factors that are good predictors of the development of opioid use disorder such as young age a personal history of mental illness and substance use disorder.

• Diagnosing opioid use disorder during pain management is difficult and requires a thorough evaluation.

• Problematic Opioid use exists on a continuum.

• Check yo'self before you...inappropriately prescribe opioids—ADVERSE SELECTION!!!
Thanks to...

- Melissa Weimer, MD
- Central City Concern, Old Town Clinic
- OHSU Addiction Medicine Team
Resources

www.coperems.org

www.scopeofpain.com

www.pcssso.org
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• Adapted from painedu.org powerpoint: Opioid Risk Stratification and Patient Selection in Clinical Practice. Accessed on April 2 2012


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• Miotto, KA. Adapted from UCLA/Matrix Addiction Medicine Service Powerpoint: Diagnosing Addiction in Chronic Pain Patients. Accessed on April 2 2012
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