The Opioid Epidemic: Public Health Nurses Respond

Colleen T. LaBelle BSN, RN-BC, CARN
Boston Medical Center,
MA Department of Public Health
Bureau of Substance Abuse Services,
Program Director, STATE OBAT

Association of Public Health Nurses (APHN) webinar
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Learning Objectives

• Define the disease of addiction
• Identify signs of drug misuse
• Explain how the Prescription Monitoring Program can be useful in clinical care
• Describe how to effectively communicate with a patient who you suspect may be misusing opioid analgesics or other medications
• List educational resources and websites
When you were young, did you dream of being addicted?

Addiction is a disease. A disease that can be treated.
Celebrity Deaths Due to Prescription Drug Abuse
Drug overdose deaths outnumbered motor vehicle traffic deaths in 10 states in 2005.
Drug Overdose Deaths Outnumber Motor Vehicle Traffic Deaths
31 States, 2010

[Map showing states in red for states with more deaths from drug overdose]

More deaths from drug overdose

CDC National Vital Statistics System, Multiple Causes of Death. 2010
>129 people die from drug overdoses every day in the United States.

Every 11 minutes One person will die in the United States from an overdose..... CDC, Oct. 2015
Why a surge in overdoses?

- Prescription opioids for pain
- Transitioning to heroin
- Erratic and more deadly heroin supply
- Poly substance use
  - Poly pharmacy
Figure 1. Age-adjusted rates for drug-poisoning deaths, by type of drug: United States, 2000–2013

NOTES: The number of drug-poisoning deaths in 2013 was 43,982, the number of drug-poisoning deaths involving opioid analgesics was 16,235, and the number of drug-poisoning deaths involving heroin was 8,257. A small subset of 1,342 deaths involved both opioid analgesics and heroin. Deaths involving both opioid analgesics and heroin are included in both the rate of deaths involving opioid analgesics and the rate of deaths involving heroin. Access data table for Figure 1 [PDF - 86KB]. SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.
Deaths are the tip of the iceberg

For every 1 opioid overdose death in 2010 there were...

- 15 abuse treatment admissions
- 26 emergency room visits
- 115 who abuse/are dependent
- 733 nonmedical users

$4,350,000 in healthcare-related costs
Homelessness
Crime
Violence

Addiction

Neurotoxicity
AIDS, Cancer
Mental illness

Medical

Health care
Productivity
Accidents

Social

Economic

DRUGS
Historical Context

- **Early 1900s**: Morphine clinics for opiate addicts
- **1914**: Congress adopts Harrison Narcotic Act
- **1920**: AMA condemns prescribing opioids to addicts
- **1923**: Last morphine clinic closed
- **1935**: Civil commitment to USPHS Narcotic Hospitals
  - Lexington, Kentucky and Fort Worth, Texas
  - Detoxification with > 90% relapse rates
- **1960s**: Medication maintenance treatment research
- **1970s**: Methadone Maintenance
Bayer Heroin 1898

BAYER PHARMACEUTICAL PRODUCTS

Send for samples and Literature to

ASPIRIN
The substitute for the salicylates

PROTARGOL
ARISTOL

QUINALGEN

EUROPHEN
HEROIN-HYDROCHL.

HEROIN
The sedative for coughs

LYCETOL
The uric acid solvent

FERRO SOMATOSE
SULFONAL
HEMICRANIN

SOMATOSE
SYCOSE

PHENACETIN
TRIONAL

SALOPHEN
The antirheumatic and antineuralgic

FARBENFABRIKEN OF ELBERFELD CO.

40 STONE STREET, NEW YORK.
Mrs Winslow's Soothing Syrup (w/ Morphine)
Trading Card / Ad (1885-1890), Erowid.org Archive
Why Do People Take Drugs in The First Place?

**To Feel Good**
- To have novel:
  - feelings
  - sensations
  - experiences
- AND
- to share them

**To Feel Better**
- To lessen:
  - anxiety
  - worries
  - fears
  - depression
  - hopelessness
Opiates and Opioids

OPIATES are present in opium
  • e.g. morphine, codeine, thebaine

OPIOIDS are manufactured as
  • Semisynthetics
    Derived from an opiate
    – e.g. heroin from morphine
    – e.g. buprenorphine from thebaine
  • Synthetics
    Completely synthesized to have function similar to natural opiates
    – e.g. methadone
Addiction: the disease

- **1956**: American Medical Association
- The illness can be *described*
- The course of the illness is *predictable* and *progressive*
- The disease is *primary*—that is, it is not just a symptom of some other underlying disorder
- It is *permanent*
- It is *terminal*: If left untreated, can lead to morbidity and mortality
We Know There’s a Big Genetic Contribution to Drug Abuse and Addiction…

….Overlapping with Environmental Influences that Help Make Addiction a Complex Disease.
Treatment Non Compliance Rates Are Similar for Drug Dependence and Other Chronic Illnesses

# Opioid Effects

## Acute Use Effects

<table>
<thead>
<tr>
<th>Euphoria</th>
<th>Vomiting</th>
<th>Constricted Pupils</th>
<th>Depressed Respiration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drowsiness</td>
<td>Decreased Pain</td>
<td>Decreased Awareness</td>
<td>Decreased Consciousness</td>
</tr>
<tr>
<td></td>
<td>Sensation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Large Dose Acute Effects (overdose)

<table>
<thead>
<tr>
<th>Non-Responsive</th>
<th>Pinpoint Pupils</th>
<th>*If Severe Anoxia Pupils May Dilate</th>
<th>Bradycardia &amp; Hypotension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Cyanotic</td>
<td>Skeletal Muscle</td>
<td>Pulmonary edema in ~50%</td>
<td>Slow or Absent Respiration</td>
</tr>
<tr>
<td></td>
<td>Flaccid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Chronic Use Effects

<table>
<thead>
<tr>
<th>Physical dependence</th>
<th>Psychological dependence</th>
<th>Lethargy and indifference</th>
<th>Reduction in bowel movement</th>
</tr>
</thead>
</table>
Natural History of Opioid Dependence

- Tolerance and Physical Dependence
- Acute use
- Chronic use
- Normal
- Euphoria
Opioid Withdrawal Syndrome

**Acute Symptoms**

- Pupillary dilation
- Lacrimation (watery eyes)
- Rhinorrhea (runny nose)
- Muscle spasms (“kicking”)
- Yawning, sweating, chills, gooseflesh
- Stomach cramps, diarrhea, vomiting
- Restlessness, anxiety, irritability
What is Physical Dependence?

- Predictable physical effects of administering opiates:
  - **Tolerance**: the body becomes efficient in processing the drug and requires ever higher doses to produce the desired effect.
  - **Dependence**: when the drug is discontinued there are typical withdrawal signs and symptoms.
Spontaneous Withdrawal Syndrome

- Develops spontaneously if a physically dependent person suddenly stops, or markedly decreases, the opioid use.

- Severity is usually less with longer half-life drugs.

- Duration depends on half-life of opioids person uses (see chart below).

<table>
<thead>
<tr>
<th></th>
<th>Onset</th>
<th>Peak</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heroin</strong></td>
<td>4 - 6 hours</td>
<td>~3 days</td>
<td>4 - 7 days</td>
</tr>
<tr>
<td><strong>Methadone</strong></td>
<td>1 - 2 days</td>
<td>~7 days</td>
<td>12 - 14 days</td>
</tr>
</tbody>
</table>
Opioid Withdrawal Syndrome

Protracted Symptoms

- Deep muscle aches and pains
- Insomnia, disturbed sleep
- Poor appetite
- Reduced libido, impotence, anorgasmia
- Depressed mood, anhedonia
- Drug craving and obsession
Opioid Detoxification Outcomes

- Low rates of retention in treatment
- High rates of relapse post-treatment
  - < 50% abstinent at 6 months
  - < 15% abstinent at 12 months
  - Increased rates of overdose due to decreased tolerance

O’Connor PG JAMA 2005
Mattick RP, Hall WD. Lancet 1996
Stimmel B et al. JAMA 1977
Medication Assisted Treatment

• Goals
  • Alleviate physical withdrawal
  • Opioid blockade
  • Alleviate drug craving
  • Normalized deranged brain changes and physiology

• Some options
  • **Naltrexone** (opioid antagonist)
  • **Methadone** (full opioid agonist)
  • **Buprenorphine** (partial opioid agonist)
Signs of Drug-Seeking Behavior

• Making an appointment with multiple providers a short period of time, same or a similar prescription for the same ailment

• Deliberately injuring themselves before visit to the MD/APN or local hospital

• Requesting a “replacement” prescription out of town and left their legitimate prescription at home
Signs of Drug-Seeking Behavior

• Requesting a “replacement” prescription for lost or stolen prescription
• Cutaneous signs - skin tracks, scars neck, axilla, forearm, wrist, foot and ankle. Multiple, hyper-pigmented and linear. New lesions may be inflamed. Signs of "pop" scars from subcutaneous injections.
Signs of Drug-Seeking Behavior

- Paying cash
- Lives in a city or county different from that of the doctor's office
- Requesting a certain brand, dosage of a drug; reluctant to try a different drug
- Lack of medical records
Signs of Drug-Seeking Behavior

- At follow-up seeks increase the number of tablets that are prescribed monthly
- Pressures the MD/APN by eliciting sympathy or guilt or by direct threats
- Utilizes a child or an elderly person when seeking pain medication
Signs of Drug-Seeking Behavior

- Refusal to provide information about their previous MD/APN
- No interest in diagnosis - fails to keep appointments for further diagnostic tests or refuses to see another practitioner for consultation
Signs of Drug-Seeking Behavior

- Feigns physical problems: abdominal or back pain, kidney stone, or migraine headache in an effort to obtain narcotic
- Feigns psychological problems: anxiety, insomnia, fatigue or depression to obtain stimulants or depressants
- May show unusual knowledge of controlled substances and/or gives medical history with textbook symptoms
Signs of Drug-Seeking Behavior

- The patient appears nervous, in a hurry to secure the prescription & exit
- Unusual appearance: extremes of either sloppy-dressed or being over-dressed
- May exaggerate medical problems &/or simulate symptoms
- May exhibit mood disturbances, suicidal thoughts, lack of impulse control, thought disorders, &/or sexual dysfunction
Signs of Drug-Seeking Behavior

- Assertive personality; demands to be seen right away
- Wants an appointment toward end of office hours
- Calls or comes in after regular hours
- Complain of >10 out of on 10 pain scale
- States that specific non-narcotic analgesics do not work or that he/she is allergic to them
"Trinity"
Xanax
Soma
Hydrocodone

"Holy Trinity"
Xanax
Soma
Oxycontin
Communication Techniques to Decrease Anxiety

- Techniques that decrease anxiety by **setting the stage** or preparing the patient to discuss sensitive topics
  - Normalizing
  - Using transparency
  - Asking permission
  - Option of not answering question
  - Addressing confidentiality concerns
TRANSPARENCY—Establishes Relevance to Care

- Transparency: Explain why you are asking—be open about your reasons
  - Explain the need in a medical setting to discuss “taboo” topics
  - “I need to ask you some very specific questions about your medical, and social history”
“Would it be alright with you if I asked you some questions about your alcohol use?”
ALCOHOL USE-Screening
Single Question Screening Tool

How many times in the past year have you had 5 or more drinks in one day (men)

How many times in the past year have you had 4 or more drinks in one day (women)

Smith, J Gen Inter Medicine 2009
The Problem... chronic pain is complicated
The Problem...

More unrealistic expectations...

Opioids = Pain Relief

therefore

More Opioids = More Pain Relief
Wellness
Reduce Pain
Improve Quality of Life
Restore Function

It’s More Than Medications

Exercise
Manual therapies
Other modalities

Wellness

Psycho-behavioral

Medication

Procedural

Blocks
Steroid injections
Trigger point injections
Stimulators
Pumps

NSAIDS
Anticonvulsants
Antidepressants
Topical Opioids
Others
What is Addiction?

• A clinical syndrome presenting as…
  – Loss of Control
  – Compulsive use
  – Continued use despite harm

• It is NOT physical dependence
  – Biological adaptation with signs and symptoms of withdrawal (e.g., pain) if opioid is abruptly stopped
Pseudo-Opioid-Resistance

- Some patients with adequate pain relief believe it is not in their best interest to report pain relief
  - Fear that care would be reduced
  - Fear that physician may decrease efforts to diagnose problem

Evers GC. Support Care Cancer. 1997
When Are Opioids Indicated?

• Pain is moderate to severe
• Pain has significant impact on function
• Pain has significant impact on quality of life
• Non-opioid pharmacotherapy has been tried and failed
• Patient agreeable to have opioid use closely monitored (e.g. pill counts, urine drug testing)
Opioid Safety and Risks

- Addiction

- Overdose especially at high doses and when combined with other sedatives

- Worsening pain (in some patients?)
What is the Overdose Risk?

- Risk of fatal overdose seems directly related to the maximum prescribed daily opioid dose.
  - Doses (morphine equivalents) 50-99 mg/d had a 3.7-fold increase in overdose risk.
  - Doses >100 mg/d had an 8.9-fold increase in overdose risk with a 1.8% annual overdose rate.
- Doses > 120 mg/d had 2x the risk of substance-related health services utilization encounters (withdrawal, intoxication, overdoses).

Braden JB et al. Arch Intern Med 2010
Bohnert ASB et al. JAMA 2011
Common Universal Precautions

- **Patient Prescriber Agreements (PPA)**
  - **Informed Consent** (goals and risks)
  - **Plan of Care**
    - Signed by both patient and prescriber
    - Serves as a **Patient Counseling Document**

- **Monitoring** for adherence, misuse, and diversion
  - Urine drug testing
  - Pill counts
  - Prescription Drug Monitoring Program (PDMP) data

Informed Consent

Realistic Goals

- Reduce pain, not eliminate
- Increase function (individualized and SMART goals)
  - Specific
  - Measureable
  - Action-oriented
  - Realistic
  - Time-sensitive

Potential Risks

- Side effects, physical dependence
- Drug interactions
- Over-sedation and potential for impairment e.g., driving
- Misuse, overdose
- Pregnancy and risk of Neonatal Abstinence Syndrome (NAS)
- Possible hyperalgesia (increased pain)
- Victimization by others seeking opioids

Plan of Care

- Engagement in recommended treatments
- Policies – monitoring, refills
- Permission to communicate with key others
- No illegal drug use, avoid sedative use
- Notifying all other medications and drugs
- Discuss birth control, periodic monitoring for pregnancy
- Medication management
  - Use exactly as directed
  - Safe storage and protect from theft
  - Safe disposal
  - No sharing or selling,

Implementing Universal Precautions in Pain Medicine

Use a Health-Oriented, 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...

Do the benefits of opioid treatment outweigh the untoward effects and risks for this patient (or society)?

Judge the opioid treatment NOT the patient

Urine Drug Tests

Objective information that can provide:

- Evidence adherence
- Evidence: use or non-use illicit drugs

- Discuss urine drug testing openly with patient
- Random, scheduled and/or when concerns arise
- Small risk for mislabeling, other lab error
- Controlled setting: don’t send to the lab
- May tamper with urine

Urine Drug Testing

• **GC/MS confirmation**
  - Identifies specific molecules
    - Sensitive and specific
    - More expensive
  - Measurement of urine drug levels is not a valid method of determining the amount of opioid ingested

- Must be aware of opioid metabolism to interpret

# Pill Counts

**Objective information that can:**
- Confirm medication adherence
- Minimize diversion

<table>
<thead>
<tr>
<th>Strategy</th>
<th>28 day supply (rather than 30 days) prevents running out on weekends</th>
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<tbody>
<tr>
<td>Prescribe so that patient should have residual medication at appointments</td>
<td></td>
</tr>
<tr>
<td>Ask patient to bring in medications at each visit</td>
<td></td>
</tr>
<tr>
<td>For identified risks or concerns, can request random call-backs for immediate counts</td>
<td></td>
</tr>
</tbody>
</table>
### Prescription Drug Monitoring Programs (PDMP)

- Statewide electronic database on dispensed controlled prescriptions
  - Prescription data available to prescribers, pharmacists, delegates (usually for the past year, and including information on date dispensed, patient, prescriber, pharmacy, medicine, and dose)
  - A substantially underutilized resource
    - Many states now mandate use before writing for controlled substances
  - Several studies* suggest association between PDMP use and positive outcomes related to improving prescribing and reducing prescription drug abuse

Assessing Harm

• “Universal Precautions”
  • Agreements/contracts/informed consent
  • Monitor for aberrant medication taking behavior
  • Monitor for adherence, addiction and diversion
    • Urine drug testing
    • Pill counts
    • Prescription monitoring program data
  • Initially small quantities & frequent visits
  • Establish a refill & cross coverage system

FSMB Guidelines 2004 www.fsmb.org
Gourlay DL, Heit HA. Pain Medicine 2005
Chou R et al. J Pain 2009
Discussing Monitoring

- Review the personal and public/community health risks of opioid medications
- Discuss your responsibility to look for and manage early signs of harm
- Discuss agreements, pill counts, and drug tests as ways that you are helping to protect patient from getting harmed by medications

Use consistent approach (Universal Precautions)

BUT apply it individually to match risk
Discussing Monitoring w/ Patients

• Discuss risks of opioid medications
• Assign responsibility to look for early signs of harm
• Discuss agreements, pill counts, drug tests, etc. as ways that you are helping to protect patient from getting harmed by medications
  – Statin - LFT monitoring analogy
• Use consistent approach, but set **level of** monitoring to match risk
Continuation of Opioids

• Is there benefit?
• Benefit must outweigh observed harms.
• If no benefit, hence benefit cannot outweigh risks – so STOP opioids. (Ok to taper and reassess.)
• You do not have to prove addiction or diversion – only assess Risk-Benefit ratio.
Opioids and Unrealistic Expectations

If patients expect that opioids will **eliminate** their pain...

they may think that more opioids will equal more pain relief...

leading to unsanctioned dose escalation and/or continued requests for higher doses.

Re-educate about realistic goals and potential opioid risks

Aberrant Medication-Taking Behaviors

**Pain Relief Seeking**
- Disease progression
- Poorly opioid responsive pain
- Withdrawal mediated pain
- Opioid analgesic tolerance
- Opioid-induced hyperalgesia

**Drug Seeking**
- Opioid use disorder/Addiction
- Other psychiatric diagnosis
- Criminal intent (diversion)

**Pain Relief and Drug Seeking**

*For example*, patient with chronic pain, with co-morbid addiction, taking some for pain and diverting some for income

Drug Seeking

Opioid Use Disorder (OUD)

- *Tolerance
- *Withdrawal
- Use in larger amounts or duration than intended
- Persistent desire to cut down
- Giving up interests to use opioids
- Great deal of time spent obtaining, using, or recovering from opioids

- Craving or strong desire to use opioids
- Recurrent use resulting in failure to fulfill major role obligations
- Recurrent use in hazardous situations
- Continued use despite social or interpersonal problems caused or exacerbated by opioids
- Continued use despite physical or psychological problems

*This criterion is not considered to be met for those individuals taking opioids solely under appropriate medical supervision

Mild OUD: 2-3 Criteria
Moderate OUD: 4-5 Criteria
Severe OUD: ≥6 Criteria

Drug Seeking

Addiction

Clinical syndrome presenting as...

- Loss of **Control**
- **Compulsive** use
- Continued use despite harm

Aberrant Medication Taking Behaviors (pattern and severity)

Addiction is **NOT** the same as Physical Dependence

Concerning Behaviors for Addiction

Spectrum: **Yellow** to **Red** Flags

- Requests for increase opioid dose
- Requests for specific opioid by name, “brand name only”
- Non-adherence w/other recommended therapies (e.g., PT)
- Running out early (i.e., unsanctioned dose escalation)
- Resistance to change therapy despite AE (e.g. oversedation)
- Deterioration in function at home and work
- Non-adherence w/monitoring (e.g. pill counts, UDT)
- Multiple “lost” or “stolen” opioid prescriptions
- Illegal activities – forging scripts, selling opioid prescription

Continued Lack of Benefit

Remember:

- Not all chronic pain is opioid responsive
- More opioid is not always better
- More opioid may increase risk of adverse effects
Discussing Continued Lack of Benefit

- Stress how much you believe/empathize with patient’s pain severity and impact
- Express frustration re: lack of good pill to fix it
- Focus on patient’s strengths
- Encourage therapies for “coping with” pain
- Show commitment to continue caring about patient and pain, even without opioids
- Schedule close follow-ups during and after taper
Discussing Possible Addiction

Stay in the Risk/Benefit mindset:

• Give specific and timely feedback why patient’s behaviors raise your concern for possible addiction e.g., loss of control, compulsive use, continued use despite harm

• Remember patients may suffer from both chronic pain and addiction

• May need to “agree to disagree” with the patient

• Benefits no longer outweighing risks

• “I cannot responsibly continue prescribing opioids as I feel it would cause you more harm than good.”

• Always offer referral to addiction treatment
Discussing Possible Diversion

• Discuss why you are concerned about diversion
  ▪ e.g., nonadherence with pill counts, Urine Drug Test negative for prescribed opioid

• Discuss your inability to continue to prescribe opioids if the opioids are being given or sold to others (i.e., diversion)
Discontinuing Opioids

- Do not have to prove addiction or diversion - only assess and reassess the risk-benefit ratio

- If patient is unable to take opioids safely or is nonadherent with monitoring then discontinuing opioids is appropriate even in setting of benefits

- Need to determine how urgent the discontinuation should be based on the severity of the risks and harms

- Document rationale for discontinuing opioids

- Determine if the opioid needs to be tapered due to physical dependence

You are abandoning the opioid therapy **NOT** the patient
Risk Benefit Framework

Useful in Decision to Continue or Discontinue Opioids

Benefits
- Pain
- Function
- Quality of Life

Risks/Harm
- Misuse
- Addiction, Overdose
- Adverse Effects

Useful to Avoid Pitfalls

“But I really, really need opioids.”
“Don’t you trust me?”
“I thought we had a good relationship/I thought you cared about me.”
“If you don’t give them to me, I will drink/use drugs/hurt myself.”
“Can you just give me enough to find a new doc?”

RESPONSE: “I cannot continue to prescribe a medication that is not helping you (or is hurting you or both).”
Addiction Medicine Specialist

When to Refer

When patient:

• is using illicit drugs
• is experiencing problems with other prescription medications (e.g., benzodiazepines)
• abuses or is addicted to alcohol
• agrees they have an opioid addiction and wants help such as referral to medication-assisted treatment (e.g., methadone, buprenorphine, naltrexone)
• has dual or trio diagnosis of pain, addiction, and psychiatric disease
Making Addiction Treatment Referrals

- Substance Abuse and Mental Health Services Administration (SAMHSA) treatment locator [www.samhsa.gov/treatment](http://www.samhsa.gov/treatment)

- AA/NA free, widely available and effective

- **Free mentoring** (and education) through the Providers’ Clinical Support System for Medication Assisted Treatment (PCSS-MAT) [http://pcssmat.org](http://pcssmat.org)
3 AMA PRA Category 1 Credits™ available, plus risk management and opioid education credits
Safe and Competent Opioid Prescribing Education (SCOPE) Program
www.scopeofpain.com

Risk Evaluation and Mitigation Strategy (REMS) Program

3 components

- Free web-based education (including video vignettes)
- Live conferences held around the US
- Train-the-trainer workshops
Resources/Websites

• www.buprenorphine.samhsa.org

• Intnsa.org

• info@cnetnurse.com

• www.samhsa.org

• www.NIDA.org

• Email Colleen LaBelle Colleen.Labelle@bmc.org
Thank you!
Questions?
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