Roles for Clinicians

In reducing Opioid-Related Harm

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Opioid-Related Harm

• Historical perspective
• Current challenges
• What are our roles in reducing harm?
  – Resources to support engagement
Opioid-Related Harm

- Historical perspective
- Current challenges
- What are our roles in reducing harm?
Millenia of Controversy

- “Joy plant” *Sumeria 3000 BC*
- “Among the remedies it has pleased almightily God to give man to relieve his suffering, none so beneficent nor efficacious as opium”  
  *Thomas Sydenham, 1600s*
- “…save our people from the clutches of this hydra-headed monster which stalks the civilized world, wrecking lives and happy homes, filling our jails and lunatic asylums…”  
  *Witherspoon JA. A protest against some of the evils in the profession of medicine. JAMA. 1900;34:1589–1592*
- “The use of narcotics in the terminal cancer patient is to be condemned … due to undesirable side effects … dominant in the list of these … is addiction”  
Opioid Use Trends

Late 1800s-early 1900s

- Post Civil War – opioids, willowbark, cannabis, cocaine
- Early 1900’s widespread prescribing & street opioid use
- Opioid maintenance of addiction common
- 1914 Harrison Act tracks & taxes opioids
- 1919 & 1920 Federal Decision–addiction outside realm of medical interest: opioids can not be used to treat
- Prescribing for pain legal, but use declined
Opioid Use Trends

1950s
- Opioid use discouraged
- Cancer feared, elective surgeries deferred, chronic pain tolerated

1960s
- Methadone treatment introduced, AMSA, Haight Ashbury Free Clinic
- St Christopher’s Hospice 1967

1970s
- IASP 1973, APS 1977, Pain Medicine
- Aggressive tx cancer pain & acute pain
- Interdisciplinary care of chronic pain (Bonica, Fordyce, others)
Opioid Use Trends

1980s
- Observation: cancer pts not inevitably addicted or tolerant
- Positive trials opioids for non-cancer pain reported
- Interdisciplinary care of chronic pain available

1990s
- JCAHO, VA-5th vital sign, other pain quality initiatives
- Opioid therapy of all pain increases
- Pain technologies evolve: pumps, stimulators, radiologically guided injections

*Era of possibilities: pain can be vanquished!*
- Medicine as business: interdisciplinary pain care wanes
Opioid Use Trends 2000s

- Burgeoning concerns re: opioid misuse, abuse, addiction
- Research on misuse, risks, strategies for prevention
- Clinical & industry focus on risk reduction strategies
- Proliferation of opioid guidelines
- Efficacy, cost, duration of interventionalist tx debated
- DATA 2001 makes buprenorphine tx available
Opioid Use Trends

2010’s and beyond

– Renewed interest in interdisciplinary pain care
– Healthcare reform aims at EVB, cost-effective care
– Care of chronic illness a priority
– Heroin rises as prescription opioid misuse declines
Opioid-Related Harm

- Historical perspective
- Current challenges
- What are our roles in reducing harm?
• Chronic pain as a disease
• Affects > 100 million American adults
• Costs society $560–$635 billion/year
• ~1% NIH budget on pain research

• Rising prescription drug abuse, associated harm & deaths
• Chiefly related to opioids
U.S. Opioid Prescribing Trends

Figure 1. Opioid Prescriptions Dispensed by US Retail Pharmacies. IMS Health, Vector One: National, Years 1991-1996, Data Extracted 201. IMS Health, National Prescription Audit, Years 1997-2013, Data Extracted 2014.

Volkow to Congress, NIDA, 2014
U.S. Opioid Non-Medical Use

Figure 2. Nonmedical Use of Prescription Opioids and Heroin during the Previous Year among Noninstitutionalized Persons 12 Years of Age or Older, 2002–2014.

Data are from the Center for Behavioral Health Statistics and Quality. NSDUH data, Compton W, NEJM, 2016
U.S. Demand for Opioid Treatment

U.S. Opioid Overdose Deaths

Figure 1. Age-Adjusted Rates of Death Related to Prescription Opioids and Heroin Drug Poisoning in the United States, 2000–2014.
Data are from the Centers for Disease Control and Prevention.5
N.H. Opioid Treatment Demand

**NUMBER OF ADMISSIONS TO STATE-FUNDED TREATMENT PROGRAMS FOR HEROIN AND PRESCRIPTION OPIATES, 2004-2013**

Source: NH Bureau of Drug and Alcohol Services

**Heroin & Rx Opiate Treatment Admissions by Month**

January 2015 - December 2015

Source: NH Bureau of Drug & Alcohol Services
N.H. Opioid Associated Deaths

Overdose Deaths By Year

Data Source: NH Medical Examiner's Office

# of Drug Deaths

2010 2011 2012 2013 2014 2015*

All Drug Deaths

Heroin Related Deaths

Fentanyl Related Deaths

Rx Opioid Deaths

*2015 Numbers are based on analysis completed as of 8 January 2016- cases still pending
+ Heroin & Fentanyl Related deaths are not mutually exclusive, several deaths involved both drugs
N.H. Neonatal Opioid Exposure

Neonatal Abstinence Syndrome
What you need to know

Neonatal Abstinence Syndrome
NH Infant Discharges 2000-2009

Rate per 1,000 live births

NH Department of Health and Human Services, MCH, PrenatalProgram
Rx Opioid Use & Heroin

• Almost 50% of injection heroin users report using prescription opioids prior to heroin
  

• Trajectory to addiction often initiated prior to opioid exposure
  (OA following prescribed opioids 28x more likely with prior SUD)
  
  Huffman KL et al. J Pain.2015 Feb;16(2):126-34

• Most prescription opioid exposures do not lead to addiction
  – Incidence clinically identified OUD in chronic pain treatment: 1/500 with no prior SUD. 3/100 general population
  
  *Fishbain et al, Pain Medicine,2008 Edlund et al, J Drug and Alcohol Dependence, 2010

• How to target strategies to reduce opioid addiction & overdose
• Heroin/fentanyl is cheap, potent, available, snortable. Future
Opioid Misuse Comprehensive Approach

**Public Education**
- Benefits
- Dangers of misuse
- Lock
- Dispose

**Public Policy**
- PMPs
- Drug disposal
- Parity payment MH and Addiction
  - (CME reqs)

**Clinical Practice**

**Professional Education**
- Undergraduate: pain and addiction medicine
- CME

**Industry**
- Risk mitigation
- REMS
- Tamper resistant opioids
- New analgesics

**Pharmacy Practice**
- ID purchasers
- Information
- Drug safes
- PMP data

**Justice/Law**
- Use of PMP in investigations
- Drug diversion programs or courts
- Drug take back
- Drug tx prisons

**Payors**
- Data
- Support time, care coordination, MH, SUD Tx
Opioid-Related Harm

• Historical perspective
• Current challenges
• What are our roles in reducing harm?
Opioid Use Spectrum & Intervention

**Evolution**
- Overdose
- Misuse:
  - Addictive
  - Recreational
  - Self medication
- Risky use
- Clinical use
- Non-use

**Prevention**

**Clinician Roles**
- Naloxone for OD
- Support recovery
- Prescribe bup/nx & naltrexone
- Routine SBIRT
- Best opioid practices
- Optimum pain tx

**Treatment**

OD Intervention
Opioid Use Spectrum & Intervention

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Earlier Understanding of Pain

Rene Descartes, 1644
To Brain
- Multiple synapses
- Rich interconnections
- Modulation by
  - Meaning
  - Thoughts
  - Feelings
  - Memories

Transmission Modulation

Lateral and Anterolateral Spinothalamic tracts

Spinal modulation
- norEpi, serotonin
+ glutamate, NDMA

Mixed fiber neurons

Dorsal Horn

Nociceptors:
- Polymodal, high threshold
- A-delta, c-fibers

Sensitized by:
- kinins,
- H+,
- norEpi
- hypoxia,
- prostaglandins

Perception Modulation

Pain
Nociceptive & Neuropathic

Modulation
- Meaning
- Thoughts
- Feelings
- Memories

Transduction Modulation

Afferent nociceptive pathway
Afferent non-nociceptive sensory pathway

Modulation
- Meaning
- Thoughts
- Feelings
- Memories
Physiologic Stimulus

Nociceptive → Neuropathic

Biopsychosocial Context
of the Individual

Acceptance
Appraisal
Biogenetics
Conditioning
Coping
Culture
Incentives
Mood
Meaning
Self-Efficacy
Sleep
Social Context
Acceptance
Experiences
Personality
Experience of Pain
Persistent Pain

- Secondary Physical Problems
- Sleep Disturbance
- Substance Misuse
- Anxiety
- Depression
- Functional Disabilities
- Increased Stresses
- Cognitive Distortions
Addiction

- Secondary Physical Problems
- Anxiety
- Depression
- Cognitive Distortions
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- Substance Misuse
- Functional Disabilities

Sleep Disturbance
Secondary Physical Problems
Sleep Disturbance
Substance Misuse
Functional Disabilities
Increased Stresses
Cognitive Distortions
Anxiety Depression
Pain Addiction
Pain Treatment

Psycho-Behavioral
- Cognitive behavioral
- Meditation
- Tx mood/trauma issues
- Address substances

Procedural
- Nerve blocks
- Steroid injections
- Stimulators
- Pumps
- TPIs

Physical
- Exercise
- Modalities
- Orthotics
- Manual therapies

Medication
- NSAIDs
- Anticonvulsants
- Antidepressants
- Topical agents
- Opioids
- Others

Self Care

Clinical Care

Cultivate well-being

Reduce pain

Improve quality of life

Restore function

Virtual Reality

Distraction

Insula

Thalamus

Induced Pain
Outcomes

**Intensive Interdisciplinary Treatment**

122 patients on opioids at admission with ineffective relief or opioid-related harm

- 63% withdrawn & remained off at discharge
  - 3 on depot naltrexone to support recovery from opioid addiction.
- 18% (22) transitioned to opioid agonist therapy (OAT) for addiction
  - 20 on buprenorphine/nx
  - 2 on methadone with referral to MMT
- 19% (23) lower dose opioid, mean dose redux >% 75 MSEq
- 1 patient with opioid dose unchanged

Savage, Moore, Singer et al, Intl Conf on Opioids, 2015
Opioid Use Spectrum & Intervention

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Treatment Intervention

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Opioid best practices
Reward

Drive

Inhibition

Adapted from Nora Volkow, NIDA

Courtesy of National Institutes on Drug Abuse
Drug Exposure

Reward ↔ No Reward

Biopsychosocial Context of the Individual

Biogenetics, Sleep, Culture, Social Context, Incentives, Appraisal, Acceptance, Conditioning, Mood, Experiences, Meaning, Self-Efficacy, Coping, Personality

Individual Pattern Substance Use
Non-Medical Prescription Opioid Use Sources
NSDUH, 2006 (&2010)

Source Where Respondent Obtained

- Drug Dealer/Stranger: 3.9%
- Bought on Internet: 0.1%
- Other: 4.9%
- More than One Doctor: 1.6%
- One Doctor: 19.1%
- Bought/Took from Friend/Relative: 14.8%

Source Where Friend Obtained

- One Doctor: 80.7%
- More than One Doctor: 3.3%
- Bought/Took from Friend/Relative: 4.9%
- Drug Dealer/Stranger: 1.6%
- Free from Friend/Relative: 7.3%
- Other: 2.2%

Note: Totals may not sum to 100% because of rounding or because suppressed estimates are not shown.

1 The Other category includes the sources: “Wrote Fake Prescription,” “Stole from Doctor’s Office/Clinic/Hospital/Pharmacy,” and “Some Other Way.”
Guidelines
Opioids for Chronic Pain

- Federation of State Medical Boards, 2013
- American Pain Society, 2009
- ASIPP, 2012
- ACEOM, 2010
- State of Utah Dept. of Health, 2008
- Canadian National Pain Centre, 2010
  
  EVB Guidelines “Low evidence, strong recommendations”

- Washington State Interagency, 2010
  
  Prospectively consensus guidelines
NH BOM Rules
Complex Iterative Process

• Governor proposed emergency opioid prescribing rules to the NH Board of Medicine, November 2015
• Board adopted revised emergency rules effective through April 2016
• Then adopted “permanent” rules effective May 3, 2016, in effect currently
• Legislature then passed law requiring more detailed rules with a specific series of inclusions
• Board deliberated, held public hearings and voted on proposed rules September 9th
• Final rules go into effect January 1, 2017 if adopted by GLCAR
NH BOM Opioid Prescribing Rules

**All Pain**

https://www.nh.gov/medicine/

*Excludes cancer & terminal pain and does not apply to supervised administration of opioids in healthcare setting*

- Document history & physical
- Document prescription & rationale for opioids
- *Complete a Board approved risk assessment tool*
- Document tx plan that includes consideration of non-pharm & non-opioid options
- Lowest effective dose for fewest number of days
- *Written informed consent with specific inclusions*
- Query the NH PDMP prior to initial script
  - Except if administered drug, PDMP down, or querying would delay care in the ED due to excessive volume

*Indicates new or revised rules effective January 1, 2017 if approved by GELCAR. Non-starred items currently required as of May 3, 2016*
Your physician is prescribing an opioid medication as part of your treatment.

It is important to remember the following when taking your medication:

- Take your medication exactly as prescribed.
- Read all instructions that come with your medication.
- Using this drug may cause addiction. While addiction is more common in people with a personal or family history of addiction, it can occur in anyone.
- Taking more than the prescribed amount of medication or using with alcohol or other drugs can cause you to stop breathing resulting in coma, brain damage, or death.
- Opioids can slow reaction time, cause drowsiness, or cloud judgment. It may be unsafe for you to drive or operate heavy machinery while taking your medication.
- Opioids are at risk of being diverted by anyone with access to your home. Opioids should be stored in a safe and secure place, such as a locked cabinet or safe.
- Unused opioids should be disposed of according to the label or patient information. If there are no specific instructions, medications may be returned to a take-back location or mixed with a small amount of water and an undesirable waste substances such as used coffee grounds or cat litter.

Current minimum information for patients available at NH Board of Medicine website
NH BOM Rules

**Acute Pain**

- *7 day limit in ER, urgent care, or walk-in clinic*
- *For unresolved acute pain, where continuity of care is anticipated, in office follow-up visit within 30 days to issue new script if indicated*
NH BOM Rules

**Chronic Pain**

- Written treatment agreement with specifications**
- Document consideration pain consultation if >100 MSEq, high risk of misuse or co-occurring psych disorder
- *Reevaluate treatment plan & opioids at least 2x/year
- Check PDMP at least twice per year
- UDTs at least annually for patient using > 90 days
- Clinical coverage 24/7 to assist in patient management

**Not required for longterm non-rehab facility where opioid is administered or for intermittent pain receiving up to 50 dose units in three months.
*Current rules require every 4 months
Additional N.H. Opioid Prescribing Requirements

- Mandatory for all NH DEA registrants to register for PDMP by June 30th, 2015
- All registrants must include 3 hours of Board approved opioid-related CME during two year CME reporting cycle (or pass a test)
  - Opioid-related approved online CME courses: https://www.nh.gov/medicine/
CDC Opioid Guidelines 2016
http://www.cdc.gov/drugoverdose/prescribing/guideline.html

Apply to

- Care by primary care clinicians
- Treatment of chronic pain
- Patients >= 18 years old
- Do not apply to
  - active cancer treatment, palliative or end of life care
- Clinical guidelines, not rules, regs or laws
  - Rated A (all pts) B (individualize)
  - Evidence levels 1-4 (high to low)
CDC Guidelines
Opioid Initiation & Continuation

• Non opioid & non-pharmacologic therapies preferred for chronic pain A/3
  • Consider opioids only if risks outweigh benefits
  • Combine with other treatments when appropriate
• Establish pain & function treatment goals A/4
  • Continue only if progress & benefits outweigh risks
• Discuss risks & benefits, alternative therapies and responsibilities of patient & clinician A/3
  • (Usual inclusions of opioid treatment agreement, but written not explicitly recommended).

Yellow highlighted items differ from or are not included in NH BOM rules
CDC Opioid Selection, Dose, Duration

- Initiate therapy with IR opioids A/4
- Start with lowest effective dosage A/3
  - Reassess benefit & risks > 50 MME
  - Avoid or carefully justify >90 MME
- Opioids for acute pain may lead to chronic opioids A/4
  - Lowest dose IR opioids for least time
  - Usual 3-7 days ("rarely needed beyond 7 days")
- Follow-up with risk benefit assessment A/4
  - 1-4 weeks of starting
  - No less than q 3 months
  - Taper if risks outweigh benefits

*Yellow highlighted items differ from or are not included in NH BOM rules*
CDC Assessing & Addressing Opioid Risk

- **Evaluate physical & behavioral risk factors** for opioid-related harm (note: sleep disordered breathing, pregnancy, >65, MH & SUD hx, history OD) A/4
  - Adjust treatment to reduce risk
  - Consider naloxone co-prescribing for higher risk
- **Review PDMP data, initially & q Rx to q 3 mos** A/4
- **Urine drug testing initially & no less than annually** B/4
- **Avoid prescribing with benzodiazepines if possible** A/3
- **Arrange treatment for opioid use disorder** A/2
  - Usually MAT with methadone or buprenorphine and
  - Psychosocial therapy

*Yellow highlighted items differ from or are not included in NH BOM rules*
Direct Links to Opioid Prescribing Resources & Support

NH Clinical Practice Resources for Consultation & Referral

- NH pain treatment providers click here
- Substance Treatment Resources for your Patients http://www.nhtreatment.org/
- NH High Risk Obstetrical Centers click here

Opioid Prescribing Clinical Tools

- Pain evaluation templates click here and click here
- Risk screening tools click here
- Informed consent & agreement forms click here
- Pain measure & functional assessment tools click here
- Aberrant behaviors tracking click here

Information

- Become a Buprenorphine Prescriber click here
- Opioid comparison chart & rotation information click here
- Common opioid side effects & management click here
- Urine toxicology click here
- Methadone for pain click here
- Naloxone Prescribing Information http://www.prescribetoprevent.org/
- Guidance on high risk patients click here
- Guidance on opioid discontinuation click here
- Opioids in pregnancy & neonates click here
- Permanent Drug Take-Back Boxes in NH click here
Opioid Use Spectrum & Intervention

**Evolution**
- Overdose
- Misuse
  - Addictive
  - Recreational
  - Self medication
- Risky use
- Clinical use
- Non-use

**Prevention**

**Clinician Roles**
- Naloxone for OD
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  - Optimum pain tx

**Treatment Intervention**

**Opioid Use Spectrum**
- Overdose
- Misuse
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- Non-use
Addiction
Chronic Disease Similar to Other Chronic Diseases

• Common: ~ 10% lifetime occurrence (alcohol & others)

• Etiology
  – Biogenetic predisposition
  – Behaviors contribute to exposure

• Course: remissions & exacerbations

• Life-threatening: treatable, but not curable

• Recovery approaches
  – Avoidance of rewarding drug use
  – Psychosocial interventions
  – Pharmacologic treatments (methadone, buprenorphine, naltrexone)

McClellan, Lewis, O’Brien, Kleber, JAMA 2000
Chronic Disease

Treatment Adherence

Addiction

• 40-60% fully abstinent at one year
• 15-30% non-dependent use

• Adherence lowest
  – Low socioeconomic status
  – Poor family & social support
  – Psychiatric co-morbidity

Other Chronic Conditions

• Adherence to meds
  – Hypertension < 40%
  – Asthma < 40%
  – Diabetes < 60%

• Adherence behavioral change <30% (diabetes & HTN)

• Adherence lowest
  – Low socioeconomic status
  – Poor family & social support
  – Psychiatric co-morbidity

McClellan, Lewis, O ’Brien, Kleber, JAMA 2000
Addiction as a Brain Disease

After Nora Volkow, Director NIDA, 2004

Locus Ceruleus added, after Koob
Routine SBIRT-R

• **Screening** for substance use (AUDIT, DAST, ASSIST, CAGE-AID, one question screen etc)
• **Brief** intervention – feedback & options for care
• **Referral** – further evaluation and/or treatment
• **Treatment** – at appropriate level of care
  
  www.NHtreatment.org
  1-844-711-HELP (4357) or hope@keystonehall.org.

• **Recovery** support
  
  http://www.hopefornhrecovery.org/
  http://www.granitepathwaysnh.org/shrc/
  http://straffordrecovery.org/
Addiction Recovery Follow-Up

**INTERVIEW**

**Substance recovery issues**

- **Abstinent from**
  - □ Drug of choice... □ Other intoxicating substances. [If using, specify: ]

- **Patient level of comfort with recovery**
  - □ Feeling generally comfortable in recovery... □ yes □ no... □ Craving or urges to use? □ yes □ no □
  - □ Sleeping well? □ yes □ no □ Substance dreams? □ yes □ no □

- **How is patient supporting recovery? Check those that apply.**
  - □ Self help groups... □ Sponsor... □ Counseling... □ Spiritual engagement... □ Medications... □ Other... □
  - □ No conscious recovery activities □

- **Tobacco Use** □ yes □ no... □ If yes, considering cessation? □ yes □ no □

**Co-occurring issues that may impact recovery**

- □ Mental health issues stable? □ yes □ no... □ Comment: □
- □ Medical conditions stable? □ yes □ no... □ Comment: □

**Social, family or other major life stressors** □ yes □ no... □ Comment: □

**Relevant medications**

- □ Medications prescribed for recovery? (buprenorphine, methadone, naltrexone, acamprosate, other)
  - □ Using as prescribed? □ yes □ no □ Effective? □ yes □ no □

- □ Medications requiring special care in recovery? (opioids, benzos, stimulants, others)
  - □ Using as prescribed? □ yes □ no... □ Effective for symptoms prescribed for? □ yes □ no □
  - □ Ever use for other symptoms? □ yes □ no... □ Any difficulty controlling use? □ yes □ no □
OBJECTIVE

Physical exam (as indicated and to include the following as appropriate)

BP ______ P ______ → □ No relevant physical findings OR (check all that apply)

□ Fresh IV tracks □ Dilated or constricted pupils □ Tremor or hyper-reflexia □ Plethoric facies
□ Jaundice or hepatic enlargement □ Intoxicated, sedated or cognitively impaired □ Scent of alcohol, marijuana □ Withdrawal signs or symptoms □ Other ____________________________

Laboratory findings

□ None available or none applicable

□ Injection drug users: □ New HbAg □ new HcAg □ new HIV

□ Alcohol users: □ MCV, □ GGT, □ Carbohydrate deficient transferrin

IMPRESSION

□ Continuing recovery □ Tenuous recovery □ Relapse

Related issues: ____________________________

PLAN

Validate, praise & offer indicated level of support and resources (examples of statements and recs)

Continuing recovery: Addiction is a really challenging disease. You are doing a great job. Let me know anytime if I can help. Schedule in 3-6 months, sooner if recovery of less than two years.

Tenuous recovery: Addiction is a challenging disease. It’s important that your recovery feels more secure to you. I would like you to (suggest a recovery support that has been helpful to the patient — AA or NA several times a week, counseling appointment, other). Schedule to in 2-4 wks.

Relapse: Addiction is a challenging problem. You should feel good about your time in recovery. Relapses are often part of the disease. We need to help get you back in recovery. (Refer to specialty treatment, intensive AA/NA attendance or provide direct treatment as possible). Schedule in 2-4 wks.
Opioid Use Spectrum & Intervention

Evolution
- Overdose
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Clinician Roles
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Prevention

Treatment Intervention

OD Intervention
Opioid Agonist Treatment

Plasma Concentration

- Heroin /short acting
- MAT medication

Time

- Euphoria/High
- Feeling Normal
- Craving/Withdrawal
Pharmacologic Treatment

• Methadone
  – Dispensed through highly regulated clinics
  – Daily initially, expanded intervals over time
  – Greater risk if misused

• Buprenorphine
  – Prescribed by certified physicians (8 hr CME course)
  – Usually weekly initially, up to one month
  – 30 patient limits first year, 100 thereafter
  – Less risk if misused, naloxone deters misuse

• Naltrexone (Opioid antagonist)
Opioid Addiction Recovery Outcomes

2014 CEPAC Report (and other sources)

• Without opioid agonist therapy
  – 90-95% relapse within months
  – Sub-groups with better outcomes (short term use, no IV use, good social support)

• With opioid agonist therapy
  – 66% treatment retention at one year
    • 50% of those in treatment with some drug use
  – Decreased mortality, criminal involvement & healthcare emergencies
  – Increased employment
New Hampshire Buprenorphine Waiver Training

Helping states connect the dots to more effectively address opioid use disorders

Date: Friday, Nov. 4, 2016
Time: 8:00 am - 5:30 pm
Location: Mountain View Grand Resort
101 Mountain View Road, Whitefield, NH
Presenters: Joji Suzuki, MD, and Sanchit Maruti, MD
Bring: Photo ID
Cost: No fee

DATA 2000
Organization: American Academy of Addiction Psychiatry

Waivers can only be obtained directly by physicians at this time. Residents may take the course and apply for their waiver when they receive their medical degree. Physicians assistants (PAs) and advanced practice registered nurses (APRNs) are also encouraged to take the course and apply for a waiver once the regulations are promulgated from the Comprehensive Addiction and Recovery Act (CARA).

Register Now http://www.cvent.com/d/rfqh6c

www.nhms.org
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Prevention

Treatment Intervention

OD Intervention
Naloxone Actions

- No significant effects given to persons without opioids on board
- In persons on opioids
  - Reverses opioid effects including respiratory depression (unless extremely hypoxic and/or in cardiac arrest)
  - Causes withdrawal in opioid dependent persons
    - Rare aspiration, combativeness, seizures from hypoxia
- Short-acting, must get medical attention
Naloxone

• Who should have
  – Persons with or families/friends of OUDs
  – Households with opioids: high risk vs all
• Available on request at some NH pharmacies through standing order
• Clinicians may prescribe a specific product
  – To patients (document in record)
  – To persons who are not patients (document in registry)
<table>
<thead>
<tr>
<th>Brand name</th>
<th>Injectable (and intranasal- IN) generic³</th>
<th>Intranasal branded²</th>
<th>Injectable generic⁵</th>
<th>Injectable generic</th>
<th>Auto-injector branded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Narcan Nasal Spray</td>
<td></td>
<td></td>
<td></td>
<td>Evzio Auto-Injector</td>
</tr>
</tbody>
</table>

**Product comparison**

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<th>Auto-injector branded</th>
</tr>
</thead>
<tbody>
<tr>
<td>X (for IV, IM, SC)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layperson experience</th>
<th>Injectable (and intranasal- IN) generic³</th>
<th>Intranasal branded²</th>
<th>Injectable generic⁵</th>
<th>Injectable generic</th>
<th>Auto-injector branded</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assembly required</th>
<th>Injectable (and intranasal- IN) generic³</th>
<th>Intranasal branded²</th>
<th>Injectable generic⁵</th>
<th>Injectable generic</th>
<th>Auto-injector branded</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fragile</th>
<th>Injectable (and intranasal- IN) generic³</th>
<th>Intranasal branded²</th>
<th>Injectable generic⁵</th>
<th>Injectable generic</th>
<th>Auto-injector branded</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Can titrate dose</th>
<th>Injectable (and intranasal- IN) generic³</th>
<th>Intranasal branded²</th>
<th>Injectable generic⁵</th>
<th>Injectable generic</th>
<th>Auto-injector branded</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strength</th>
<th>Injectable (and intranasal- IN) generic³</th>
<th>Intranasal branded²</th>
<th>Injectable generic⁵</th>
<th>Injectable generic</th>
<th>Auto-injector branded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mg/mL</td>
<td>4 mg/0.1 mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 mg/4 mL</td>
<td>8 mg/0.2 mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volume of package to be dispensed</th>
<th>Injectable (and intranasal- IN) generic³</th>
<th>Intranasal branded²</th>
<th>Injectable generic⁵</th>
<th>Injectable generic</th>
<th>Auto-injector branded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store at 59-86 °F Fragile: Glass.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excursions from 39-104 °F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store at 59-77 °F Breakable: Glass.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excursions from 39-104 °F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost/kit⁴</th>
<th>Injectable (and intranasal- IN) generic³</th>
<th>Intranasal branded²</th>
<th>Injectable generic⁵</th>
<th>Injectable generic</th>
<th>Auto-injector branded</th>
</tr>
</thead>
<tbody>
<tr>
<td>$S$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prescription variation</th>
<th>Injectable (and intranasal- IN) generic³</th>
<th>Intranasal branded²</th>
<th>Injectable generic⁵</th>
<th>Injectable generic</th>
<th>Auto-injector branded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refills</td>
<td>Two</td>
<td>Two</td>
<td>Two</td>
<td>Two</td>
<td>Two</td>
</tr>
</tbody>
</table>
Summary

Roles for Clinicians

- Multidimensional approach to pain
- Best practices in opioid prescribing
- Use of PDMP
- Routine SBIRT-R
- Prescribe buprenorphine/nx & naltrexone
- Naloxone for opioid overdose intervention