Pain Management & Addiction

William J. Lorman, PhD, MSN, PMHNP-NP, CARN-AP
Vice President & Chief Clinical Officer, Livengrin Foundation, Inc.
Clinical Asst. Professor, Graduate Nursing Dept., Drexel University
wlorman@livengrin.org
Addiction and the Brain

Stahl S M. Essential Psychopharmacology (2000)

GABA, alcohol, nicotine, amphetamine, cocaine, opioid, cannabis, hallucinogen, 5HT

Stahl S M. Essential Psychopharmacology (2000)
Addiction: The 5 C’s
1) Continued use despite adverse consequences
2) Chronic
3) Control, loss of
4) Compulsive
5) Craving

Facts About Addiction
- Addiction affects 22 million Americans
- 75% of addicts are in the workforce
- Only 9% of Americans who need treatment receive it
- New medications can help control craving
- Relapse is a normal part of the disease
- Treatment can work
Taking drugs may begin as a voluntary choice to seek a pleasant stimulus, but for addicts, that choice is no longer volitional, even in the face of terrible personal consequences.

Opioids
- If dependence develops, drug procurement often dominates the individual's life and often leads to criminal behavior.

Withdrawal
- Symptoms start within 2 to 6 hours of last use
- Abrupt withdrawal of short-acting opiates causes prompt and severe withdrawal symptoms
Withdrawal Symptoms

- Rhinorrhea
- Yawning
- Loss of appetite
- Irritability
- Tremors
- Lacrimation

- Cramps
- Nausea
- Chills
- Diaphoresis
- Body aches
- Panic

Pain & Its Management In Addictive Populations

Medical Perspectives

- Persons with addictive disorders often do not receive regular health care.
- Medical care for acute and chronic conditions can be fragmented and inefficient
- They miss opportunities to receive preventive health care
- In addition to the direct effects of intoxication, overdose and withdrawal, abused substances can affect every body system
Pain Treatment: The 4 A’s of Assessment
1) Analgesic?
2) Adverse Effects?
3) Activities of Daily Life?
4) Aberrant Behaviors?/Predictors of Opioid Misuse

Care During Hospitalization
- Three areas of attention:
  - Management of the drug withdrawal
  - Pain management
  - Common comorbidities

Management of Withdrawal
- When a history of drug/alcohol dependence and recent use is obtained, withdrawal should be anticipated.
  - Persons not yet symptomatic with withdrawal but with past alcohol-related seizures or concomitant acute medical conditions (which increase the risk of withdrawal) should be treated with a benzodiazepine.
  - Because symptoms of withdrawal may not be distinguishable from systemic symptoms of infection, heart disease or neurologic conditions, treatment for withdrawal should proceed while investigations to identify other disorders continues.
Management of Pain

- Pain management often becomes an issue.
- Fear of causing or worsening addiction
  - This management style generally results in inadequate pain management and frustration for patient and provider.
- With opiate dependence, pain control can be achieved only with substantially higher doses of opiates
  - Once a dose is determined, pain meds should be given on a regular schedule rather than as needed.

Types of Pain

- Objective
  - Biological
  - Nociception
  - Pain
- Subjective
  - Psychological
  - Suffering

  "Pain is mandatory, suffering is optional."
  - Dalai Lama

Biological Pain Signals

- Aching
- Sore
- Burning
- Sharp
- Tingling
- Cramping
- Pounding
Psychological Pain Signals

- Awful
- Agonizing
- Torturing
- Dreadful
- Distressing
- Excruciating
- Grueling

Case Study

Alex is a 44 year old man having difficulty with pain medications.

He has AIDS
Currently on Kaletra and Combivir
Recent CD4 325    Viral Load <50
Also has hepatitis C infection with documented viremia
(type 1A) and mild elevation in AST and ALT

Pain problem: avascular necrosis of left hip for several years, requiring opioid analgesics

Initially treated with Percocet, up to 8 tablets daily
Switched to MS Contin due to concern over tylenol exposure
Eventually stabilized on MS Contin 30 mg twice daily and hydromorphone (Dilaudid) 2 mg to 4 mg every 4 hours for break-through pain

S/P total hip replacement 8 months ago
After hospital discharge, he was given Rx for Percocet by orthopedist
He is currently taking 8 Percocets daily
His primary provider has tried unsuccessfully to discontinue the Percocets
He no longer has hip pain, but he complains of irritability, malaise, insomnia, generalized body pain, abdominal cramping, diarrhea, sweats and chills when he doesn’t take them
Both the patient and his primary provider are concerned that he has developed an addiction to pain medications

Alex is concerned that he is having difficulty getting off the pain medications, but he:
- Denies craving for the pain medications
- Has a half-full bottle of Percocet at home and left-over MS Contin from an old prescription.
- Never takes them for a euphoric effect or for any other effects other than to eliminate the withdrawal symptoms.

What is your assessment?

**KEY QUESTIONS:**
What percentage of patients treated with opioids for chronic pain will develop an addiction disorder?
Are there risk factors for the development of addictions?
How can you tell if the patient is developing an addiction disorder?
PHYSICAL DEPENDENCE

- A state of adaptation characterized by a class specific drug withdrawal syndrome that can be produced by the abrupt cessation, rapid dose reduction, decreasing blood level of the drug, or administration of an antagonist

- A predictable drug effect


“MALIGNANT” VS. “NON-MALIGNANT”

Concerns about addiction are usually irrelevant in palliative care at the end of life.

Nonetheless, fear of addiction contributes to unnecessary pain and suffering, even at the end of life.

Fear of regulatory scrutiny inhibits appropriate prescribing by physicians, even at the end of life.

On the other hand, opioid analgesic therapy for chronic non-malignant pain should involve a careful assessment of benefits and risks, including addiction.

PAIN AND ADDICTION

What percentage of patients treated with opioids for chronic pain will develop addiction?

Pain specialists have reported that addiction is a rare occurrence among chronic pain patients.

Published rates of addiction in chronic pain populations

- 3% to 18%
**What is the Addiction Risk?**

- Suggests that known risk factors for abuse or addiction in the general population would be good predictors for problematic prescription opioid use
  - Past cocaine use, h/o alcohol or cannabis use
  - Lifetime history of substance use disorder
  - Family history of substance abuse, a history of legal problems and drug and alcohol abuse
  - Heavy tobacco use
  - History of severe depression or anxiety
- Many patients with opiate addiction (up to 25% in some surveys), report that their addiction resulted from prescribed opioid analgesics.

1 Ives T et al. BMC Health Services Research 2006  
2 Reid MC et al. JGIM 2002  
3 Michna E et al. JPSM 2004  
4 Akbik H et al. JPSM 2006

**PAIN AND ADDICTION**

- In retrospective analyses, nearly all chronic pain patients who developed problems with opioid use had a prior history of addiction.
  - However, prospective longitudinal studies, in well-characterized patient populations, are lacking

**OTHER RISK FACTORS FOR ADDICTION**

- Co-occurring psychiatric disorders
- Use of short-acting opioids which are more “reinforcing” than long-acting opioids
SIGNS OF ADDICTION IN PAIN PATIENTS:
“ABERRANT BEHAVIORS”
- Lost or stolen Rx
- Escalating doses, early renewals
- Obtaining medication form other sources
- Use of pain medications for psychic effects, e.g. to relieve anxiety, increase energy, or for euphoria
- Unwillingness to try non-opioid mediations
- Deterioration in function

PSEUDOADDICTION
Behaviors that resemble addiction that occur when pain is under-treated.

- “Watching the clock” for pain medications in hospital
- “Drug seeking” and “doctor shopping”
- Asking for specific medications by name
- Hoarding of medications
- Unsanctioned escalation in dose

These behaviors resolve when the pain is adequately treated.

Alex (continued)
In order to treat opioid withdrawal, Alex received a long acting opioid which slowly tapered off over the course of several weeks.

He completed the taper without any complications and did not display any aberrant behaviors.

Despite being advised to abstain completely from alcohol and cigarettes, he continues to drink and smoke as before.
**PAIN AND ADDICTION**

- Chronic pain is very common among patients with addictions disorders
  - trauma
  - medical illness

- Chronic opioid use, e.g. methadone maintenance, may lead to increased sensitivity to pain (hyperalgesia)

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**PAIN AND ADDICTION**

Should you prescribe opioid analgesics for patients with addiction disorders?

- Regulatory issues (will you get in trouble with the DEA?)
- Clinical issues (is it good medicine?)

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**PATIENT EVALUATION**

Complete history and physical

- Detailed pain history, physical exam, prior treatment history, indications for opioid analgesic (under accepted medical standard of care)
- History of substance abuse
- Psychiatric history
- Communicate with prior clinicians, obtain prior records
Monitoring, Monitoring, Monitoring…
"Universal Precautions"

- Contracts/Agreement form
- Drug screening
- Prescribe small quantities
- Frequent visits
- Single pharmacy
- Pill counts

FSMB Guidelines 2004 www.fsmb.org
Gourlay DL, Heit HA. Pain Medicine 2005

PERIODIC REVIEW

- Analgesic response
- Aberrant behaviors, signs of addiction or diversion
- Functional status: patients on effective analgesia should have improved function; patients with addiction disorders will get worse
- Do the benefits of opioid analgesics continue to outweigh any risks?

Prescription Drug Misuse

- Includes
  - Non-medical use
  - Substance Abuse/PDA
  - Dependence/Addiction
  - Diversion
- * Does NOT include physical dependence

American Psychiatric Association, DSM IV-TR, 2000
Weaver, Schnoll. J Addiction Medicine, 2007
Aberrant Medication-Taking Behavior

**More Likely to be Suggestive of Addiction**
- Deterioration in functioning at work or socially
- Illegal activities – selling, forging, buying from nonmedical sources
- Injection or snorting medication
- Multiple episodes of “lost” or “stolen” scripts
- Resistance to change therapy despite adverse effects
- Refusal to comply with random drug screens
- Concurrent abuse of alcohol or illicit drugs
- Use of multiple physicians and pharmacies

**Yellow Flags**
- Complaints about need for more medication
- Drug hoarding
- Requesting specific pain medications
- Openly acquiring similar medications from other providers
- Occasional unsanctioned dose escalation
- Nonadherence to other recommendations for pain therapy

**Exhibit 2: Past Year Initiation of Non-Medical Use of Prescription-type Psychopharmaceutics, Age 12 or Older: In Thousands, 1965 to 2005**

Source: SAMHSA, OAS, NSDUH data, 2005
Stopping Opioid Analgesics

- Patient is not improving and may have opioid-resistant pain
- Some patients experience improvement in function and pain control when chronic opioids are stopped
- Patient may have a new problem – “opioid dependence (addiction)” and may need substance abuse treatment
- Be clear that you will continue to work on pain management using non-opioid therapy
- Taper patient slowly to prevent opioid withdrawal

Summary

- The use of opioid analgesic therapy requires careful assessment and tailored monitoring approaches
- Diagnosing addiction during pain management is difficult and requires careful monitoring
- Usual substance abuse risk factors probably apply to prescription opioid abuse
- Manage lack of benefit by tapering opioids
- Manage addiction by tapering opioids and referring to substance abuse treatment

WEB Sites

- [http://www.samhsa.gov/about/csat.aspx](http://www.samhsa.gov/about/csat.aspx) (Centers for Substance Abuse Treatment)
- [http://www.samhsa.gov/](http://www.samhsa.gov/) (Substance Abuse and Mental Health Services Administration)
Questions and Comments