Improving Safety in Opioid Prescribing: A Framework for Chronic Pain in Outpatient Practice

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I have no actual or potential conflicts of interest in relation to this program/presentation.
Objectives

• Discuss recent trends in the misuse of prescription opioids
• Describe screening procedures recommended prior to initiating opioids
• Describe The 4-A’s structure of monitoring patients on chronic opioid therapy
• Discuss the differential diagnosis and management of aberrant drug-taking behaviors
• Describe the two techniques for urine drug testing
• Discuss procedures for minimizing diversion, including registries, drug monitoring programs, call backs and pill counts.
Dependence on/Abuse of Illicit Drugs in the Past Year among Persons Aged 12 or Older: 2009
Initiation of Drug Abuse: NSDUH 2009
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
Figure 1: Rate of unintentional drug overdose death in the United States, 1970-2007

Source: National Vital Statistics System
Opioid Overdose and Treatment Admissions Parallel Sales

Rates of prescription painkiller sales, deaths and substance abuse treatment admissions (1999-2010)


Figure 3: Drug Overdose Death Rates by State, 2007

Source: National Vital Statistics System

The source of the data is: Registry of Vital Records and Statistics, MA Department of Public Health
Source of Pain Relievers
NSDUH 2006

Source Where 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%
- Free from Friend or Relative: 55.7%

Source Where Friend/Relative Obtained
- One Doctor: 80.7%
- More than One Doctor: 3.3%
- Free from Friend/Relative: 7.3%
- Bought/Took from Friend/Relative: 4.9%
- Drug Dealer/Stranger: 1.6%
- Other: 2.2%
Chronic Pain and Opioids in Primary Care

• 20-40% of primary care visits have chronic pain complaints (Upshur 2006)
• Medical management of chronic pain falls to outpatient medical providers
  • Pain specialists often procedurally focused
• Pressures to aggressively treat pain
  – Advocacy groups, JCAHO’s “fifth vital sign”, big pharma
• Largest proportion of misused opioids from primary care providers
• Specific guidelines exist, but providers are unaware of recommendations
• Providers in all settings feel unprepared and unsupported in caring for pain patients
  – Providers feel threatened...
Goal: Practice and Documentation = Practice Guidelines

• Universal Precautions in Pain Medicine: A Rational Approach to the Treatment of Chronic Pain
  – Gourlay DL, Heit HA, Almahrezi A
  – Pain Medicine 2005:6(2);107-112

• Federation of State Medical Boards: Model Policy on the Use of Controlled Substances in the Treatment of Pain, 2004
  – www.fsmb.org

• Opioid Treatment Guidelines
  • Chou R, et al. Journal of Pain, 10(2), 2009
Case study

• 41 year old male, low back pain
• Electrician, fell from ladder
• Standard tx for acute LBP last 3 months
• MRI with DJD L4-S1, Disk herniation without nerve impingement
• Unable to work, sleep, function at home
• History of alcohol problems in his 20’s
• Percocet from brother make the pain better, improve his function
• Out of money, needs to get back to work
Prior to the prescription of opioids for a new patient...

- Determine diagnosis: are opioids indicated?
- Character of pain and functional assessment
- Informed consent and treatment agreement
- Risk assessment for misuse of opioids
- Screen for mood disorders/mental illness
- Screen for alcohol/substance misuse
  - Screening tools, urine toxicology, RX monitoring program
- Treatment planning
  - Goals and expectations
  - Adjuvant meds and therapies
  - Monitoring plan that matches risk profile
Opioid Trials in Chronic Pain

• Moderate to severe pain
• In adequate response to non opioid medications and non-medication modalities
• Potential benefits outweigh the risks
• Patient informed and gives consent
• Clear measurable treatment goals established
• Quality of evidence: Poor
Opioid Efficacy in Chronic Pain

- Most literature surveys & uncontrolled case series
- RCTs are short duration <4 months with small sample sizes <300 pts
- Mostly pharmaceutical company sponsored
- Pain relief modest
  - Some statistically significant, others trend towards benefit
  - One meta-analysis decrease of 14 points on 100 point scale
- Limited or no functional improvement

Balantyne JC, Mao J. NEJM 2003
Agreements (Contracts)

• Rationale and risks of treatment
• Treatment goals
• Adjuvant therapies
• Monitoring plan
• Refill and other office policies
• Action for aberrant med taking behaviors
• Conditions for discontinuing opioids

Arnold RM et al. Am J of Medicine 2006
Informed Consent

- Side effects (short and long term)
- Physical dependence, tolerance
- Risk of drug interactions/Over-sedation
- Risk of impairment:
  - driving/machinery/employment
- Risk of abuse, addiction
- Legal responsibilities
  - Disposing, sharing, selling
- Opioid Medication *Trial*—
  - *If inadequate benefit, too much risk, will stop*

“Failure to warn”
What are the limits to prescriber liability?

Coombes vs. Florio MA 2007

- family of child killed may sue patient’s doctor for “failure to inform” patient of risks
- Impact of medication not just on individual patient, but on third parties?
- Implications for informed consent
  - side effects, discussion of possible impact on activities, risks to others?
  - Documentation standards
  - Mental capacity to give informed consent
Opioid Misuse Risk Factors

- Young age
- Personal history of substance abuse
  - Illicit, prescription, alcohol, smoking
- Family history of substance abuse
- Legal history (DUI, incarceration)
- Mental health problems

Ives, 2006; Akbik, 2006; Webster, 2005; Michna, 2004; Reid, 2002; Compton, 1998; Chabal, 1997; Dunbar, 1996; Passik, 2006
Opioid Risk Assessment

SOAPP® - SF
Screener & Opioid Assessment for Patients with Pain Short Form

Evaluate for relative risk for developing problems (e.g. aberrant medication taking behaviors) – 86% sensitive, 67% specific

0=Never, 1=Seldom, 2=Sometimes, 3=Often, 4=Very often

1. How often do you have mood swings?
2. How often do you smoke a cigarette within an hour after you wake up?
3. How often have you taken medication other than the way it was prescribed?
4. How often have you used illegal drugs (for example, marijuana, cocaine, etc) in the past 5 years?
5. How often, in your lifetime, have you had legal problems or been arrested?

> 4 is POSITIVE  < 4 is NEGATIVE

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Screening for Substance Abuse Disorders Using ‘Single’ Questions

• “Do you sometimes drink beer wine or other alcoholic beverages? How many times in the past year have you had 5 (4 for women) or more drinks in a day?” (+ answer: > 0)

• “How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?” (+ answer: > 0)

Smith PC J Gen Intern Med 2010; 24(7):783-8
Smith PC Arch Int Med 2010;170(13):11155-1160
Screening for Mental Illness

- PHQ 9
- Other psychiatric history
- Mental status and competency
- Suicidality
- Careful medication history for interactions
While the patient is in treatment...

• Regularly assess the “4-A’s”
  – Analgesia
  – Activity
  – Adverse effects
  – Aberrant behaviors
  – Affect...

• Specific strategies to detect/prevent diversion
  – Call backs, urine drug screening (random), pill counts
  – RX monitoring program
  – Prescription intervals/quantities
  – Refill policies and visit frequency

Passik SD et al. Clin Ther. 2004
PEG* Scale
(Pain, Enjoyment, General activity)

1. What number best describes your pain on average in the past week? *(No pain - Pain as bad as you can imagine)*

2. What number best describes how, during the past week, pain has interfered with your enjoyment of life? *(Does not interfere - Completely interferes)*

3. What number best describes how, during the past week, pain has interfered with your general activity? *(Does not interfere – Completely interferes)*

*Krebs EE, et al. J Gen Intern Med. 2009*
Monitoring: Urine Drug Tests

• Implementation Considerations
  – Know limitations of test and your lab
  – Be careful of false negatives and positives
  – Talk with the patient “If I check your urine right now will I find anything in it?”
  – ? Random versus scheduled
  – ? Supervised, temperature strips, check Cr
  – ? Chain-of-custody procedures

Office Drug Testing Options
Immunoassays

**PROS:**
- Point of care, or lab based
- Fast
- Easy
- Cheap
- Specific tests available for many drugs
  - Oxycodone
  - Buprenorphine
- Can be used as screening with option for confirmation

**CONS:**
- Qualitative tests
  - Cutoff ng/ml
    - Opiates 2000
    - Cocaine metab 300
- False positives
  - Cross-reactivity
  - Contamination
- No non-morphine opioids
  - Unless specifically test
- No non-oxazepam benzos
  - Unless specifically test
Drug Testing: Quality Control

Urine:
• Observation of samples
• Temperature
• Creatinine
• pH

Oral Swabs:
• Short detection window
• ? Any quality checks
Urine Detox and Adulterants
Consider Establishing a Lab Link

Lab may provide:
• Initial screens
• GCMS confirmation
• Observed testing
• Chain of custody
• On-site testing
• On line results
• Expert consultation

"You’re fired, Jack. The lab results just came back, and you tested positive for Coke."
Pill & Patch Counts

• Confirm medication adherence
• Minimize diversion

• Bring pills to each visit
  – If patient “forgets” pills, schedule return visit w/in a week

• Consider random call backs for pill counts and drug screens

• 28 day (rather than 30 day) supply
  – Prevents the weekend run out
  – Prescriber typically in clinic the same day of the week
Massachusetts Online Prescription Drug Monitoring Program

• Online database of prescriptions filled in MA
  – Oct 2009-Dec 2010: Schedule II
  – January 2011 onward: Schedule II-V

• Pharmacies report data weekly
  – Up to 4 week lag in uploading data

• Registered providers may access online
  – Requires patient first and last names, birthday
  – Only provider may access (not nurse, MA)
  – Only for patients for whom you are prescribing
Clinical Uses of PMP

- Screen patients prior to initiating controlled substances
  - Are they taking what they say they are taking?
  - Pattern of unsafe medication use?
- Monitor for prescriptions from other sources during treatment
- Coordinate care with other providers
- Monitor for medication interactions
Frequently Asked Questions

• Prescriptions filled out of state not recorded
• You may contact any provider on that report for purposes of coordinating care
• You may report concerns for diversion to DEA investigator, medical licensing board
• Not required to use PMP, but recommended
• Do not access records of individuals not in your care
• Do not delegate access to non-licensed, non registered staff
How do I sign up?

• Application packet
• Contact info and email
• Medical license number, state controlled substances number, federal DEA number, and expiration dates for each
• Create a PIN
• Notarize and send to DPH contact listed
• DPH will follow up by email with instructions to complete the process
An ounce of prevention:
Opioids in acute pain

• Ask yourself: are opioids really needed?
• Consider lower potency agents:
  – Codeine, hydrocodone, tramadol
• Screen for substance use disorders (personal and family) and mental health problems
• **Informed consent:**
  – sedation, overdose, addiction
• Limit the number of pills dispensed
• Set a goal for the duration of treatment
• Do not refill without reassessing
• Do not use long acting opioids for acute pain
Outpatient Pain Case Continued.

• Fell on ice, says he’s in extreme pain
• Out of meds: took month’s prescription in 2 weeks
• Calling in for prescription refill early
• Demanding to see you, rude to the nurse
• Showing withdrawal symptoms
Provider Responses

- She has violated her treatment contract
- She is addicted to these medications
- We have to stop these meds now
- She should go to detox
- Every time this patient is on my schedule, I want to take a sick day
What’s going on...

What’s going on...

The Differential Diagnosis of Aberrant Behaviors

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**“Treatment Seeking”**
- Pain
  - Under-treatment
  - Progression of known condition
  - New pain generator
- Physiological dependence
  - Tolerance
  - Withdrawal or ‘abstinence syndrome’
- Hyperalgesia
- Pseudo-addiction

**“Drug Seeking”**
- Substance abuse
- Addiction
- Criminal activity
  - Self or others
- Psychiatric condition
- Cognitive impairment
Next steps

Dr. Easy
• Provide early refills
• Provide early refills with additional opioid medication to treat acute pain

Dr. Hard Core
• Provide no early refills
• Discontinue meds altogether

Dr. Middle Ground
• Provide early refills once +/- additional meds
• Enhance/intensify treatment
• Evaluate “differential diagnosis”
• Screen mental health and addiction
• Review agreement, treatment goals
• Involve family, other providers
What if...

- Patient had no acute injury, but still took more meds?
- Patient reported medication was stolen?
- Patient took entire supply of meds due to stress/anxiety?
- Review of MA PMP shows ongoing fentanyl RX from another provider
- You find your patient in the newspaper’s “police blotter” arrested for selling oxycodone?
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
Aberrant Medication-Taking Behavior

*Less Likely to be Suggestive of Addiction*

- Complaints about need for more medication
- Drug hoarding
- Requesting specific pain medications
- Openly acquiring similar medications from other providers
- Occasional unsanctioned dose escalation
- Non-adherence to other recommendations for pain therapy
Too little benefit

- Inadequate analgesia
- Not improving function
- Not meeting treatment goals
- Not all pain is opioid responsive
  - Acute > Chronic
  - Nociceptive > Neuropathic
  - Varies among individuals

- More is not always better
- Maximum opioid dose beyond which little benefit is seen (120 mg MSO4 equivalent?)
Too much risk

Opioid related
• Adverse events
  – Side effects; Toxicity
• Increasing dose without increasing benefit
  – Tolerance?
• Increasing dose without worsening condition
  – Hyperalgesia?
• Addiction
  – Loss of control
  – Use despite negative consequences
  – Compulsive use

Psychosocial
• Psychiatric instability
• Unsafe housing or storage
• Non compliance with monitoring procedures
• Non compliance with office procedures
• Use of other non opioid drugs of abuse
• Diversion or criminal behavior
Avoiding “Abandonment”

• Documentation of risk/benefit discussion and why treatment discontinued
  – *Allow for medically appropriate taper*

• Restate commitment to continue to work with patient on pain and addiction if needed
  – Refer to specialty pain treatment providers
  – Alert patient to addiction treatment resources

• See patient frequently and monitor for progress and safety

• Copy to patient and to chart
Challenges

• Involuntary Withdrawal
  • Set a reasonable schedule and stick to it
• Emergency Termination
• Recurrence of pain
  • Overlap of pain and withdrawal symptoms
  • Assess withdrawal intensity with scale
• Psychiatric instability
  • Overlap of pain and psychiatric symptoms
  • Suicidality
• Threatening behavior
  • “if you don’t prescribe this for me I will just have to get it on the street”
  • “I’m calling my lawyer”
Finding Treatment

• SAMHSA Treatment Facility Locator
  – http://dasis3.samhsa.gov/

• Massachusetts State Helpline 800-327-5050
  – www.helpline-online.com

• Buprenorphine Treatment
  – MA State hotline: 617-414-6926
  – http://buprenorphine.samhsa.gov/
  – www.naabt.org
Thank you!
jeff.baxter@umassmed.edu
Drug Testing Reference Slides
<table>
<thead>
<tr>
<th>Drug Testing Technique</th>
<th>Characteristics</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
</table>
| Immunoassays           | • Engineered antibodies bind to drug metabolites  
                         • Most commonly used technique in all settings, including hospital labs | • Easy to use in many settings including office-based testing  
                         • Less expensive  
                         • Available for specific drugs, or a panel of drugs | • Qualitative testing: positive or negative only  
                         • Often have high cut-off levels, giving **false negative** results  
                         • Risk of cross reactivity with other agents, giving **false positive** results |
| GCMS (Gas Chromatography, Mass Spectrometry) | • Directly measures drugs and drug metabolites | • Very specific, less cross-reactivity, minimizes **false positives**  
                         • Very sensitive, detects low levels of drug, minimizes **false negatives**  
                         • Quanitative testing | • Requires advanced laboratory services  
                         • Very expensive |
<table>
<thead>
<tr>
<th>Drug</th>
<th>Primary metabolite</th>
<th>Typical cutoff ng/ml</th>
<th>Potential source of false positive</th>
<th>Time of detection in urine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opiates</td>
<td>Morphine</td>
<td>300-2,000</td>
<td>Poppy seeds, Rifampin, Chlorpromazine, Dextromethorphan</td>
<td>2-4 days</td>
</tr>
<tr>
<td>Cocaine</td>
<td>Benzoylcegonine</td>
<td>300</td>
<td>Very specific metabolite</td>
<td>1-3 days</td>
</tr>
<tr>
<td>Amphetamine, Methamphetamine</td>
<td>Amphetamine</td>
<td>1,000</td>
<td>Ephedrine, Phenylpropanolamine, Methylphenidate, Trazodone, Bupropion, Ranitidine</td>
<td>2-4 days</td>
</tr>
<tr>
<td>Marijuana</td>
<td>Tetrahydrocannabinol (THC)</td>
<td>50</td>
<td>NSAIDS, Marinol, Pantoprazole</td>
<td>1-3 days for intermittent use; up to 30 days in chronic use</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>Standard assays measures oxazepam, diazepam</td>
<td>200</td>
<td>Oxaprozin</td>
<td>Varies with half-life of agent</td>
</tr>
</tbody>
</table>
## Table: Natural and Synthetic Opioids

<table>
<thead>
<tr>
<th>Natural Opiates from opium</th>
<th>Semi Synthetic Opioids derived from opium</th>
<th>Synthetic Opioids Manufactured, not from natural opium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>Hydrocodone</td>
<td>Methadone</td>
</tr>
<tr>
<td>Codeine</td>
<td>Oxycodone</td>
<td>Propoxyphene</td>
</tr>
<tr>
<td>Thebaine</td>
<td>Hydromorphone</td>
<td>Fentanyl</td>
</tr>
<tr>
<td></td>
<td>Oxymorphone</td>
<td>Meperidine</td>
</tr>
<tr>
<td></td>
<td>Buprenorphine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diacetyl-morphine (heroin)*</td>
<td></td>
</tr>
</tbody>
</table>

Typical opiate immunoassays detect only natural opiates that are metabolized to morphine, and do not detect semi-synthetic or synthetic opioids.

* Heroin is metabolized to morphine, and therefore can be detected using a standard opiate immunoassay.