Treating Chronic Pain with Prescription Opioids in the Substance Abuser: Relapse Prevention and Management

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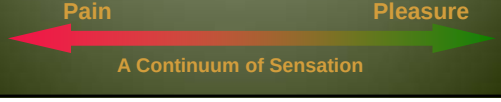
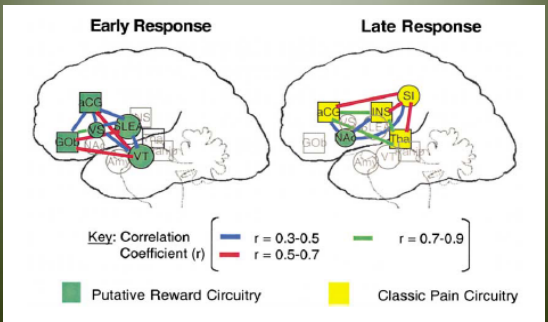
"For pain is perhaps but a violent pleasure? Who could determine the point where pleasure becomes pain, where pain is still a pleasure?
–Honoré De Balzac (1799–1850)

"Pleasure and pain, though directly opposite, are yet so contrived by nature as to be constant companions; and it is a fact that the same motions and muscles of the face are employed both laughing and crying.
Pierre Charron (1541 - 1603)

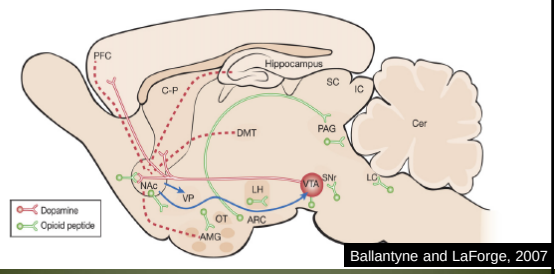


Neuro-anatomical overlap of pain and reward



Becerra L. et al. *Neuron.* 2001;32(5):927-946.

Centrality of Opioid systems in both Pain and Reward responses



Ballantyne and LaForge, 2007

- Effects can be blocked with naloxone
- Binding induces second-messenger induced changes

Opioid Responses by Murine Strain

	BALB/c (common inbred)	CXBH (recombinant inbred)	C57 (common inbred)	CXBK (recombinant inbred)
Pain Tolerance	↑[1]	↑[1]	↓[1]	↓[1]
Analgesic Response	↑[2,3,4,6]	↑[2,3,5]	↓[2,4,5,6,7]	↓[2,3,5,8,9]
Reinforcement/ Reward Responses	↓[2,4]	↓[2]	↑[2,4,10]	↑[2]
Opioid Receptor Binding	↑[2]	↑[2,9]	+/-[2]	↓[2,9,12]

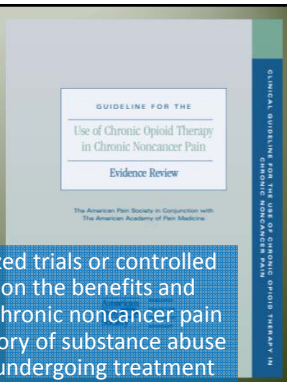
[1]Elmer, et al. 1998. [2]Elmer, et al. 1995. [3]Oliverio, et al. 1997. [4]Semenova, et al. 1995. [5]Elmer, et al. 1993. [6]Olivero & Castellano. 1974. [7]Brase, et al. 1977. [8] Gwynn & Domino. 1984. [9]Mogil, et al. 1996. [10]Belknap, et al. 1995. [11]Berrettini, et al. 1994. [12]Mogil, et al. 1995. [13]Petruzzi, et al. 1997, [14]Gelernter, et al. 1998.

Pain and Addiction As Interrelated Phenomena

Clinical implications for:

Treating Chronic Pain with Prescription Opioids in the Substance Abuser

- Can it be effective?
- Under what conditions is it effective?
- What nursing interventions underlie successful pain management?
- What if the patient is noncompliant/relapses?



" There are no randomized trials or controlled observational studies on the benefits and harms of opioids for chronic noncancer pain in patients with a history of substance abuse or addiction that are undergoing treatment for addiction" (2009, p. 52)

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History of substance abuse in chronic pain patients

- Across literature, a personal or family history of substance use disorder is the *best predictor* of drug abuse, misuse or other aberrant drug-related behaviors
- Risk stratification approaches for selecting patients for chronic opioid therapy identify those with a history of substance use as at *high risk for poor treatment response*

(Chou et al., 2009)

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The patient with chronic pain AND untreated addictive disease WILL NOT get better with opioid prescription

By definition, the addict will be unable to achieve the goal of chronic pain treatment, functional restoration.

- physical capabilities
- psychological intactness
- family and social interactions
- health care utilization
- appropriate medication use

Patients with active addiction are not candidates for opioid therapy

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DSM-IV Substance Use Disorders

Substance Abuse

- One or more within a 12-month period
  - Failure to fulfill major role obligation
  - Recurrent use in hazardous situations
  - Recurrent legal problems
  - Recurrent social or interpersonal problems

Substance Dependence

- Three or more within a 12-month period
  - Abuse criteria, plus:
  - Tolerance
  - Withdrawal
  - Larger amount/longer time than intended
  - Persistent desire to control use
  - Great deal of time spent in activities related to use

APA, 1994

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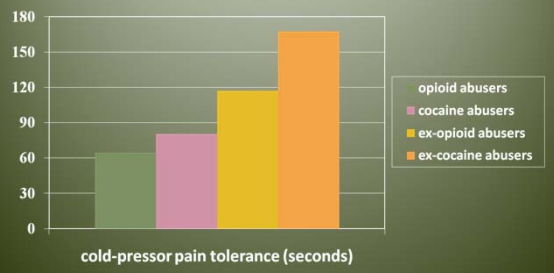
Addiction results in a "Syndrome of Pain Facilitation"

(Schofferman & Savage,1995)

Discomfort augmented by:

- subtle withdrawal syndromes
- intoxication or withdrawal-related sympathetic arousal, muscular tension
- concomitant health problems
- sleep disturbances
- affective changes
- functional changes

Pain Tolerance in Opioid and Cocaine abusers



(Compton, 1994)

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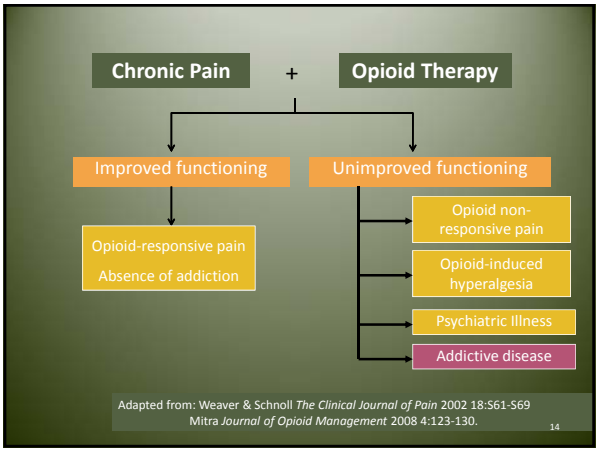

Adapted from: Weaver & Schnoll *The Clinical Journal of Pain* 2002 18:S61-S69
Mitra *Journal of Opioid Management* 2008 4:123-130.

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Patients with addictive disease **in remission** can appropriately and effectively use opioids for chronic pain

17%-26% of chronic pain patients have a substance dependence disorder in remission (Strain, 2002)

- Of a random sample of 300 veterans, 21% of those with chronic pain and on opioid therapy had a history of substance abuse, but no current indication of abuse or dependence (Clark, 2002).
- Of 52 chronic pain patients on opioid therapy, 27% had a history of addictive disease (50% w/ family history), but did not meet diagnostic criteria for a substance use disorder (Compton et al., 1998).

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Addiction is a chronic disease

- Pathological basis
- Known risk factors
- Predictable course
- Treatments of known efficacy
  - Treatment requires behavioral changes
  - Most successful when treatment is ongoing
- Characterized by remissions and exacerbations
- Exacerbation = Relapse
  - precipitated by stressors (chronic pain, depression) and/or opioid exposure

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Key goal of treating the substance abuser with chronic pain using controlled prescription drugs:

Prevent Relapse

- Assessment
  - What is the risk of relapse?
- Monitoring
  - How can relapse be identified?
- Management
  - How can chronic opioid treatment be provided to minimize risk of relapse?
  - How can relapse be managed?

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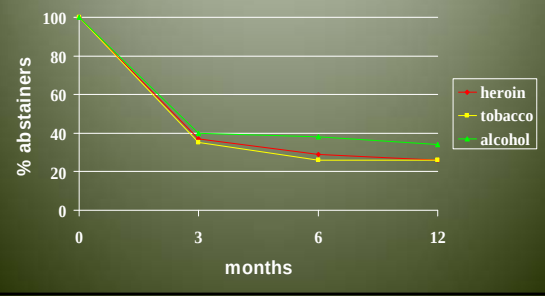
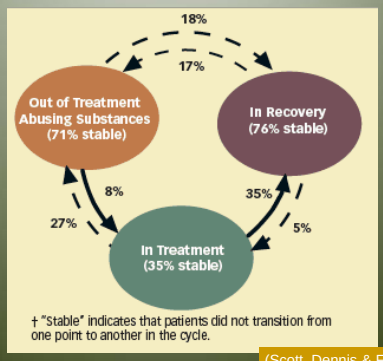
Relapse a well-understood phenomenon in addiction literature



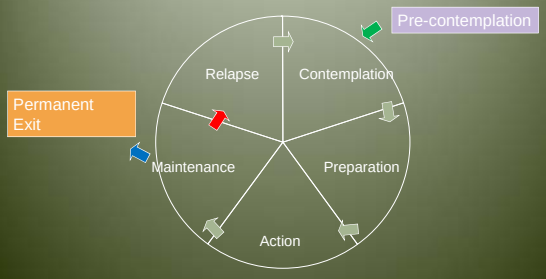
Recovery is Cyclical, not Linear



(Scott, Dennis & Foss, 2005)

Transtheoretical Model of Change

Prochaska & DiClemente, 1982



Stages of Change and Nursing Tasks

Patient Stage	Motivational Tasks
Precontemplation	Raise doubts; increase client's perception of risks and problems
Contemplation	Tip the balance; evoke reasons for change and risks of not changing
Determination	Help pt to determine best plan of action
Action	Help pt to take steps toward change
Maintenance	Help pt to identify and use strategies to prevent relapse
Relapse	Renew process of contemplation while maintaining self-esteem

Relapse: Competing Definitions

- "treatment failure"
- all-or-none outcome
- an end state
- nothing much one can do about it
- overpowers the individual

- "fork in the road to change"
- part of the process
- a mistake; a slight error; a slip
- a useful, beneficial step
- a learning opportunity

(Marlatt & Gordon, 1985)

Goals of Relapse Prevention

In general:

- Develop new behaviors (success is more than not engaging in unhealthy behavior)
- Learn to monitor signs of vulnerability to relapse (recognize "high risk" situations)
- Establish strategies to deal with craving (enhance coping responses) and relapse

For pain patient:

- Optimal functioning with appropriate opioid use

High Risk Situations

Similar across behaviors

- alcoholics, smokers, heroin addicts, gamblers, overeaters

56% intrapersonal determinants:

- negative or positive emotional/physical states
- craving/urges

44% interpersonal determinants

- interpersonal conflicts, social pressure
- stress

* *For pain patients*: unrelieved pain, opioid withdrawal Sx

HALT

- **H**ungry
- **A**ngry
- **L**onely
- **T**ired

Goal is to increase self-efficacy in high risk situations

1. Identify High-risk Situations

Behavioral assessment procedures

- an awareness **and** intervention technique self-monitoring & direct observation
  - actual use, urges/cravings, intentions to use, coping mechanism used
  - thwarts automaticity of the behavior
- self-efficacy ratings - coping capacity in high risk situations
- review past relapse episodes/relapse fantasies

Craving

- Intense powerful drive or desire
- Difficult to control
- Common source of relapse

Coping with Craving

- Distraction
- Talking about craving
- Active recall of negative consequences
- Using self-talk

2. Enhance Coping Responses

High-risk Situational Cues = Discriminative Stimuli ("red flags")

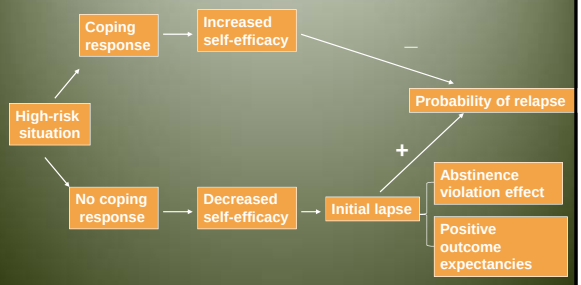
- avoidance
- skill training and practice
  - advance planning; problem-solving
- relapse rehearsal
- relaxation training
- stress management
  - Lifestyle balance – new behaviors
- Treat psychiatric disorders

3. Minimize Extent of Lapse

Prevent lapse from developing into full-blown relapse (and loss from treatment)

- Develop a "relapse contract" – put stops in place
- Balance positive outcome expectancies (immediate gratification) with delayed effects
- Cognitive restructuring
  - avoid the abstinence violation effect

The Relapse Process



Relapse Analysis

- Session to be done when relapse occurs after a period of good behavior
- Functional analysis
  - What happened?
  - How did you feel?
- Relapse should be framed as learning experience for client

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  - How can relapse be managed?

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Assessment of risk for relapse

Status of disease remission:

- How long has patient been in recovery? What is current status of addiction recovery efforts/treatment?
- What type(s) of drugs were abused?
- What are current stressors that might precipitate relapse? (i.e., unrelieved pain; withdrawal Sx; psychiatric Sx)
- What are current protective factors against relapse? (i.e., coping responses)
- How stable does patient feel in recovery? (i.e., relapse contract)

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Assessment of risk for relapse

Correlates of analgesic abuse in chronic pain patients with a history of addiction:

- Absence of family support
- Lack of 12-step involvement
- Recent history of polysubstance abuse (not alcohol abuse alone)
- Previous history of chronic opioid therapy
- Failure in improvement of pain symptoms

(Dunbar & Katz, 1996)

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Monitoring for emergence of relapse

Like constipation and sedation, behaviors consistent with relapse must be assessed as a potential medication-related adverse effect.

Evidence of addiction in pain patients on opioid therapy

- Adverse consequences associated with opioid use
- Loss of control over the use of opioids
- Preoccupation with obtaining opioids
- Decline in function

2001 Consensus Statement from the American Society of Addiction Medicine, American Academy of Pain Medicine, and the American Pain Society

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Monitoring Medication Use behaviors

- Addiction is a disease of behavior
  - patient behavioral response to the opioid-analgesic regimen provides evidence for the presence of active addiction.
- Objective evidence of medication use behaviors
  - treatment contracts/medication agreements
  - urine toxicology

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Opioid treatment contracts

- Evidence that the patient is having difficulty adhering to prescribed medication regimen
  - Outline inappropriate or aberrant medication-use behaviors
  - not a specific indicator of relapse to addictive disease
- For patient with history of substance abuse
  - Emphasize urine toxicology
  - Add engagement in recovery efforts
  - Put controls in place with respect to opioid access
  - Add relapse plan

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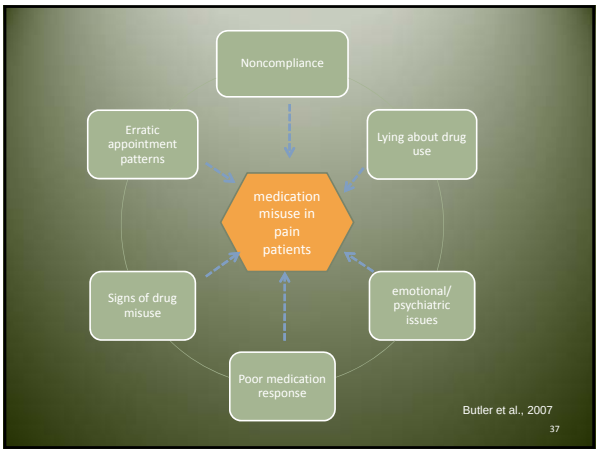

Medication Misuse ≠ Addiction

- Hariharan et al. (2007): 17% of opioid contracts cancelled by physician
  - 10% due to illicit urine toxicology (cocaine, cannabis)
  - 5% due to abuse prescription opioid abuse
  - 2% rule violation
- Compton et al. (2008): 28% discharged for medication misuse behaviors
  - 8% due to misuse of opioids

∴ Only 1/3 of those discharged from pain treatment were misusing/abusing opioids

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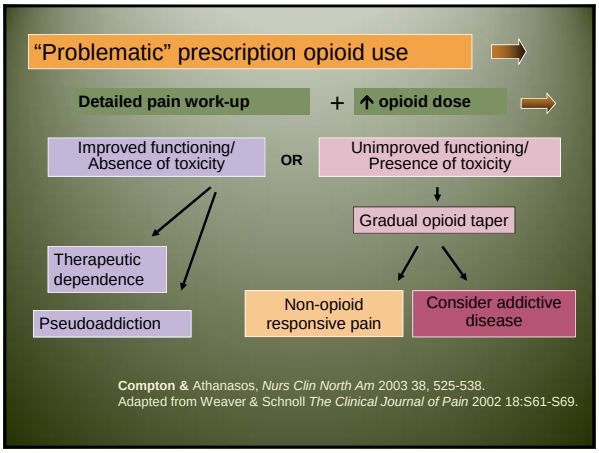

Compton & Athanasos, *Nurs Clin North Am* 2003 38, 525-538.
Adapted from Weaver & Schnoll *The Clinical Journal of Pain* 2002 18:S61-S69.

Pain Characteristics and Opioid Analgesic response in Addiction

Differential Dx	Nature of pain	Onset	Response to opioid administration	Type of previous opioid used
Increased pain pathology	Localized to pain site	Variable	Pain improves	Neither
Opioid tolerance	Localized to pain site	Gradual	Pain improves	Long acting
Opioid withdrawal	Diffuse, hyperalgesia	Abrupt	Pain improves	Short acting
Opioid-induced hyperalgesia	Diffuse, hyperalgesia	Abrupt or Gradual	Pain worsens	Short acting
Pseudo-addiction	Localized to pain site	Ongoing	Pain improves	either
Addictive disease	Diffuse, hyperalgesia	Ongoing	Pain worsens	Short acting

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Management

Support recovery

- Regular and thoughtful urine toxicology
- Ongoing assessment of substance abuse treatment
- Ongoing assessment and management of psychiatric disorders
- Ongoing assessment of life or pain-related stressors
- Avoid opioid withdrawal

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Management

Be prepared for it's emergence

- Prescriber of opioids for chronic use is accountable for having a management strategy in place if relapse occurs.
- Providing daily opioids without suitable addiction expertise or support in place puts both the pain-management practitioner and patient at risk for poor outcomes.
- If unable to manage these adverse effects themselves, clinician should knowledgeably refer patients to qualified specialists who can better treat the untoward response.

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Management

Don't just discharge

- Relapse provides an opportunity to *intervene in the progression of addictive disease****
- Goal is a thoughtful and working partnership between addiction and pain specialists
  - pain practitioner continuing treatment for pain while also supporting addiction treatment
- As opposed to discharge, it is incumbent upon the pain-management practitioner to take more of an advocacy role in the management of addiction

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Does pain protect patient from addiction responses?

Under acute pain conditions:

- Significantly less morphine analgesic tolerance in pain assays
- Significantly less morphine physical withdrawal symptoms (Brown et al., 2002, Vaccarino et al., 1993)
- Significantly less opioid reward or euphoria (Zacny et al., 1996)

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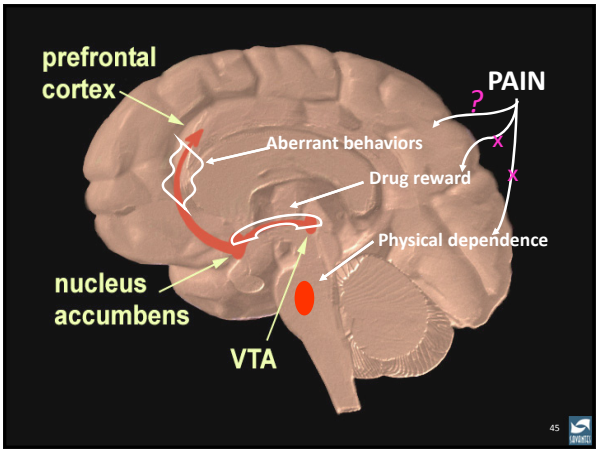

Remission of Addictive Disease Improves Pain and Functionality

- Ability to comply with regimes
- Enhanced cognitive skills
- Behavior modification techniques
- Improved social support
- Management of neuropsychiatric complications
- Improved stress control

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Settings in which nurses encounter pain and addiction

- Pain clinics
- Addiction clinics
- Post operative units
- Emergency room

Interventions for Chronic disease management

- Motivational interviewing
- Cognitive behavior therapy
- Psychiatric assessment
- Stress management
- Functional Assessment

What does nursing bring to the field of pain and chemical dependency?

- Growing literature
- Presence across clinical setting
- Complex, holistic perspective of patient
- Chronic disease management
- Independent nursing interventions
- Patient advocacy

THANK YOU!

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Relapse Analysis Topics

- Overview of the concept; things don't "just happen"
  - Re-emergence signals relapse risk ("it's a duck")
- Relapse Justification
  - Recognize and stop
- Dangerous Emotions
  - Loneliness, anger, deprivation
- Be Smart, not Strong
  - Avoid the dangerous people and places
- Avoiding Relapse Drift
  - Identify "mooring lines"
  - Monitor drift

Table 1.
Factors Affecting Drug Detection in Urine Toxicology Analysis

Substance	Lower Limit of Detection: Screening	Lower Limit of Detection: Confirmation	Duration of Detection	False Positives
Morphine	300 ng/mL	100 ng/mL	48-72 h	Foods with poppy seeds, dextromethorphan, pyrilamine, quinine water, amitriptyline, codeine, heroin
Methadone	300 ng/mL	100 ng/mL	72 h	—
Codeine	50 ng/mL	100 ng/mL	2-3d	—
Hydrocodone	50 ng/mL	100 ng/mL	Varies with lab	—
Hydromorphone	50 ng/mL	100 ng/mL	Varies with lab	—
Phencyclidine (PCP)	25 ng/mL	25 ng/mL	3-10 d	Diazepam, dextromethorphan

Table 3.
Interpretation of Opioid Toxicology in Pain Patients

Opiate	Metabolites	Toxicology Results
Codeine	morphine	+ codeine + morphine
Hydrocodone	hydromorphine	+ hydrocodone + hydromorphine
Semisynthetic opioids:		− opiate
Buprenorphine hydrocodone Hydromorphone		
Oxycodone		
Oxymorphone		
Synthetic opioids:		− opiate
Fentanyl		
Meperidine		
Methodone propoxyphene		

Sources: Helt & Gourlay, 2004; Katz & Fanciullo, 2002; Macario & Pergolizzi, 2005

Table 4.
Recommended Guidelines for the Use of Urine Toxicology

1. Adopt a universal precautions approach.
Consider all patients at risk for noncompliant opioid or illicit drug use.
2. Include urine toxicology testing as part of the opioid treatment agreement.
3. Collect urine samples on a random basis.
Exceptions:
- at initiation of treatment
- with changes in medication regimen
- when aberrant behaviors arise
- when functionality declines

4. Ensure samples are free from contaminators and are carefully labeled.
5. Minimize the likelihood of obtaining a fraudulent urine sample.
Check sample validity (pH, specific gravity, temperature).
Use toilet stall, with same-sex observer standing outside, colorant in toilet water, and no other water source.
6. Obtain sample before meeting, so that patient does not leave the office without providing a sample.
7. Develop good working relationship with analytical laboratory.
Specify tests to be performed.

Sources: Antoin & Beasley, 2004; Christo, 2003; Gourlay et al., 2005; Helt & Gourlay, 2004; Katz & Fanciullo, 2002; Macario & Pergolizzi, 2005; Substance Abuse and Mental Health Services Administration, 2005

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