



ASPMN and Ameritox Present

Safety Monitoring of Prescription Opioids

Leading to Better Clinical Outcomes

Disclaimer

The following statement cannot be considered legal advice. You should not consider any statement as interpretations of the law; they are for informational purposes only. You, the practitioner, should read the laws and regulations for your own state along with the federal information. If you have questions, you should consult an attorney who is knowledgeable in the area of pain law.

Please refer to the following suggested websites as well as your state medical association and/or board of pharmacy:

- www.ncsbn.org
- www.FSMB.org
- www.deadiversion.gov
- www.fda.gov
- www.painpolicy.wisc.edu

Objectives

- Discuss the current state of persistent pain and the issues surrounding prescription drug abuse.
- Describe treatment modalities for persistent pain.
- Define dependence, addiction, diversion, tolerance, abuse and pseudoaddiction.
- Discuss approaches to minimize risk in persistent pain management for prescribers and patients.
- Differentiate between various drug testing methodologies.
- Provide guidelines to apply in daily clinical practice.

What is Pain?

- An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.¹
- Pain is whatever the experiencing person says it is, existing whenever he says it does.²
- Persistent pain is pain that lasts longer than the expected time of healing. May be continuous or pain that reoccurs at intervals.³

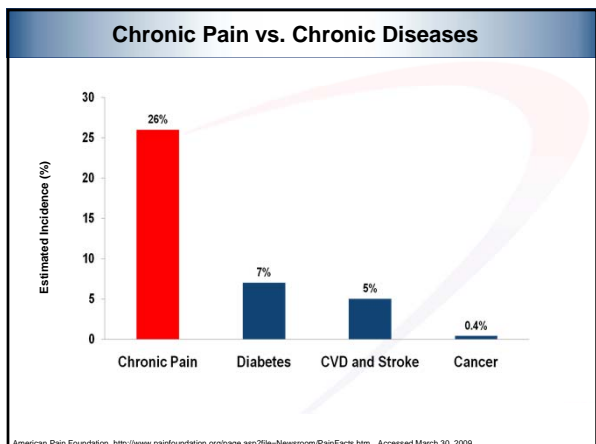
¹Merely, H. 1979
²McCaffery, M. 1968
³ASPMN Core Curriculum 2009

A Patient Population Greatly in Need

50 million Americans seek treatment for persistent pain¹

- More than 4 of 10 patients do not get adequate relief¹
- Nearly 1 of 4 patients change healthcare professionals three times because of perceptions of suboptimal pain management²
- Associated with sleep disturbances, psychiatric comorbidities³
- Highlights need for multidisciplinary cooperation in the treatment of persistent pain

¹<http://www.asppainmanage.org/literature/Articles/PainAnEpidemic.pdf>. Accessed April 30, 2007.
²<http://www.asppainmanage.org/literature/Articles/PainAnEpidemic.pdf>. Accessed April 23, 2007.
³Trans NYU at all. J Shero Bus 2007.



Treatment Modalities

Comprehensive and individualized assessment drives treatment

- Pharmacological
- Nonpharmacological
 - Cognitive Behavioral
 - Physical
 - Spiritual
 - Psychosocial
- Interventional

Opioid Analgesics in Persistent Pain Management

- Effect vs. side effects
- Safety concerns: minimal associated organ toxicity with pure opioids
- Balance between optimal pain care vs. risk of abuse/diversion
- Need risk assessment plan when opioids are part of treatment
- REMS - Risk Evaluation and Mitigation Strategies

Risk Evaluation and Mitigation Strategies

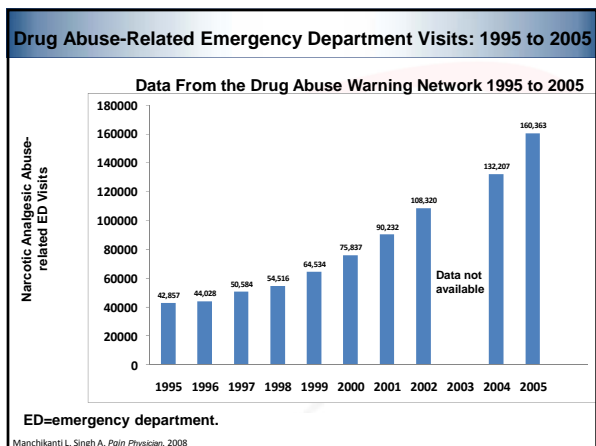
- Timetable for Assessment
- Medication Guides/Patient Package Inserts
- Communication Plan
- Elements to Assure Safe Use
 - Training/certification of prescribers, pharmacies, hospitals
 - Patient selection
 - Patient monitoring
 - Patient registry
- Implementation System

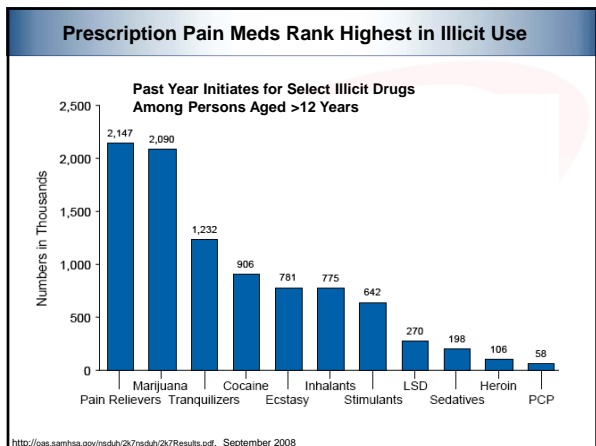


Opioid Abuse: A Serious and Growing Problem

- In 2007, 31.2 million individuals >12 years of age engaged in non-medical use of opioid analgesics at some point in time
 - 4.7 million did so in the prior 12 months
 - 2.5 million did so for the first time
 - 330% increase over 1990
- 2.8 million use oxycodone for nonmedical reasons

<http://oas.samhsa.gov/1k7n5duh/2k7n5duh/2k7Results.pdf>, 2008





- ### Complications Associated with Opioid Addiction
- 13x greater risk of death due to overdose
 - Blood-borne infections from non-sterile injections, including human immunodeficiency virus (HIV), hepatitis, endocarditis, etc.
 - Increased healthcare utilization and emergency department visits
 - Neurological disorders including Parkinson's disease
 - Weight loss and malnutrition
 - Criminal behavior
 - Loss of productivity at home, work, and school
 - Law enforcement and legal costs to society
- Torpy JM, et al. JAMA. 2004

Differentiating Persistent Pain from the Disease of Addiction

Persistent Pain	Disease of Addiction
<ul style="list-style-type: none"> • Not being out of control of medications • Medications improve Quality of Life and function • Patient is aware of side-effects • Patient is concerned about medical problems • Patient will follow treatment plan • Patient has medications left from previous prescriptions 	<ul style="list-style-type: none"> • Out of control behaviors with medications • Medications decrease Quality of Life and function • Wants medications to continue/increase despite SE • Denial of medical problems • Does not follow treatment plan • Does not have left-over medications, loses prescriptions, focuses on obtaining more medication

Balancing Pain with Risk of Addiction

Assess for


- Suffering caused by unrelieved pain
- Suffering of addiction

– Care is needed to prevent exchanging the suffering of pain for the suffering of addiction.

– Care is needed to prevent unrelieved pain in the person with addictive disorder.

Persistent Pain and Active Addiction

- Start addiction treatment
- Defer opioids until addiction treatment begins
- Use non-opioid analgesics determined by pain physiology
- Implement non-medicine treatments for managing pain



Addiction

- A primary, chronic, neurobiologic disease, with genetic, psychosocial, and environmental factors influencing disease development and manifestations.
- The disease includes one or more of the following behaviors: impaired control over drug use, compulsive use, continued use despite harm, and craving.

A consensus document from the American Academy of Pain Medicine, American Pain Society, American Society of Addiction Medicine. Definitions Related to the Use of Opioids for the Treatment of Pain, 2001.

Physical Dependence

- A state of adaptation that is manifested by a drug class specific abstinence syndrome following abrupt cessation, rapid dose reduction, decreasing blood level of the drug, and/or administration of an antagonist.

Savage SR et al. Definitions Related to the Use of Opioids for the Treatment of Pain. A consensus document from the American Academy of Pain Medicine, American Pain Society, American Society of Addiction Medicine. 2001.

Tolerance

- A state of adaptation in which exposure to a drug induces changes that result in a diminution of 1 or more of the drug's effects over time
 - Rarely accounts for need to significantly increase dose
 - Assess for new pathology, progressive disease, skipped doses and other pain causes
 - Tolerance can also develop to side effects from opioids, i.e. nausea/vomiting, sedation

Savage SR, et al. Definitions related to the use of opioids for the treatment of pain: A consensus document from the AAPM, APS and ASAM. Glenview, IL, 2001; APS, Principles of Analgesic Use in the Treatment of Acute Pain and Cancer Pain, 5th ed., 2003.

Pseudoaddiction


- Abnormal behavior caused by undertreatment of pain that is identified by the clinician as inappropriate drug-seeking behavior.
 - Behavior ceases when adequate pain relief is provided.

Weissman DE, Haddock JD Pain. 1989

Abuse and Diversion

Abuse: a maladaptive pattern of substance use leading to clinically significant impairment or distress

Diversion: the shifting of legally obtainable drugs into illegal channels or the acquisition of a controlled substance by an illegal method



Adapted from Palm Beach Sheriff's Office—Prescription Fraud/Drug Diversion Division.
http://www.pbso.org/olddocs/PBSSO_CivilLaw_Enforcement/Drug_Diversion/drug_diversion.htm

Aberrant Behavior

<u>More Predictive</u>	<u>Less Predictive</u>
<ul style="list-style-type: none"> • Selling prescription drugs • Prescription forgery • Stealing or "borrowing" drug from another person • Injecting oral formulation • Obtaining prescription drugs from non-medical source • Multiple episodes of prescription "loss" • Concurrent abuse of related illicit drugs • Multiple dose escalations despite warnings • Repeated episodes of gross impairment or dishevelment 	<ul style="list-style-type: none"> • Aggressive complaining • Drug hoarding when symptoms milder • Requesting specific drugs • Acquisition of drugs from other medical sources • Unsanctioned dose escalation once or twice • Unapproved use of the drug to treat another symptom • Reporting psychic effects not intended by the clinician • Occasional impairment

(Pasik et al, 1998)

Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain

APS and AAPM (2009): systematic review of the evidence on chronic opioid therapy for chronic non-cancer pain, and formulate recommendations for clinicians:

1. Patient selection & risk stratification	7. High dose opioids
2. Informed consent & opioid management plans	8. opioid adverse effects
3. Initiation & titration of chronic opioid therapy	9. psychotherapeutic co-interventions
4. Methadone	10. driving & work safety
5. Monitoring	11. identify a medical home
6. High risk patients	12. breakthrough pain
	13. opioids in pregnancy
	14. opioid policy

Chou R, Fanciullo GJ, et al. Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain. *The Journal Of Pain* 2009;10(2):113-130

Guideline Conclusions

Chronic Opioid Therapy:

- can be an effective therapy for carefully selected and monitored patients.
- is associated with potential serious harm including adverse events, and outcomes related to the abuse potential.

Universal Precautions in Pain Medicine

- Diagnosis with appropriate differential
- Psychological assessment with risk assessment
- Informed consent
- Treatment agreement
- Pre/post intervention assessment pain level and function
- Trial of opioid therapy +/- adjunctive medication
- Reassessment
- Regular assessment of the 4 A's
- Periodic review of pain diagnosis and comorbid conditions
- Documentation

Gourlay, Hett, Almahrezi (2005) Pain Medicine

Informed Consent

- Risk
- Benefits
- Alternatives
- Expectations

Key Elements of Treatment Agreements

- Medication ONLY prescribed by Pain Management Provider
 - Special considerations
- Must take medication as prescribed
 - No escalation of dose (includes change in frequency of dosing)
 - No sharing
 - No altering medications (chewing)

Key Elements of Treatment Agreement

- Refills will not be given early
 - None on weekends or off hours
 - Must allow for ___ days to refill
- No illicit substances
- Toxicology screening
- Pill counts
- Must be willing to participate in other therapies
- Medications filled at one pharmacy
- Side effects of medications provided
- Ongoing evaluation plan and goals of care

Examples of Treatment Agreements

Pain Medicine:
<http://www.painmed.org/>

Pain Awareness:
<http://www.painawareness.org/Topics/OpioidAgreements.aspx>

Emerging Solutions in Pain:
<http://www.emergingsolutionsinpain.com>

Chronic Pain Network:
http://www.chronicpainnetwork.com/pdf/AGREEMENT_FOR_OPIOID_MAINTENANCE.pdf

Pain Knowledge:
http://www.painknowledge.org/physiciantools/opioid_toolkit/components/Agreement.pdf

Who Gets the Agreement?

- ✓ Copy to chart
- ✓ Copy for the patient
- ✓ Referring Provider
- ✓ Primary Care Provider

Documentation

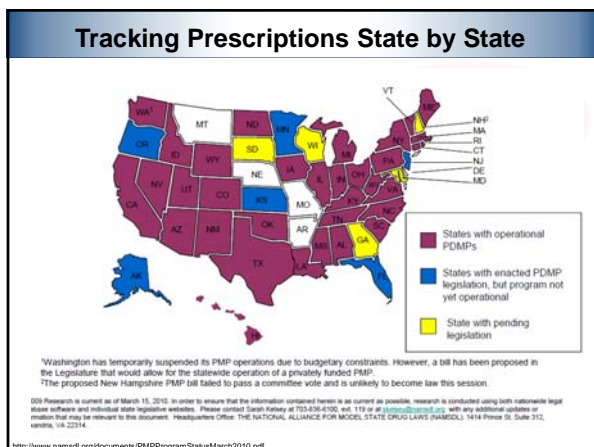
- 4 A's
 - Analgesia
 - Activity
 - Adverse effects
 - Aberrant behavior
- Goals
- Suffering
- etc

Risk Assessment Tools

- (ORT) Opioid Risk Tool
www.painknowledge.org/physiciantools/
- (SOAPP®-R) Screener and Opioid Assessment for Patients in Pain Revised
www.painedu.org/soap.asp
- (DIRE) Diagnosis Intractability Risk Efficacy
 - J Pain. 2006 Sep;7(9):671-81
- (COMM™) Current Opioid Misuse Measure
www.painedu.org

Opioid Risk Tool			
	Male	Female	
Family history (parents and siblings):			
Alcohol abuse	3	1	
Illegal drug use	3	2	
Prescription drug abuse	4	4	
Personal history:			
Alcohol abuse	3	3	
Illegal drug use	4	4	
Prescription drug abuse	5	5	
Mental health:			
Dx of ADD, OCD, bipolar, schizophrenia		2	
Dx of depression	1	1	
Other:			
Age 16-45 years	1	1	
History of pre-adolescent sexual abuse		0	

Adapted from: Webster, LR and Webster, RM, *Pain Med*: 2005; 6:432-442



- ### Baseline Urine Screening
- Objective monitoring strategy for patient pharmacotherapy in the clinical setting
 - All patients should be monitored; all age groups, all ethnicities
 - Assesses current prescription drug usage
 - Tests for illicit substances
 - Identifies potential drug-drug interactions and risks
 - Helps guide future treatment plans

UDT: Supporting Evidence

Fishbain, et al (2008) evidence-based review of all available studies on the development of abuse/addiction and aberrant drug-related behavior in persistent pain patients with nonmalignant pain on exposure to chronic opioid analgesic therapy.

Results indicated

- Urine toxicology identified a greater % (20.4%) of persistent pain patients demonstrating aberrant drug related behaviors (no opioid or opioid in urine other than prescribed) vs. aberrant drug related behaviors identified by observation only (11.5%)
- Illicit drug use is present in 14.5% exposed to chronic opioid analgesia therapy

Patient Reassessment

- Ongoing Evaluation of Treatment Plan
 - Pain level
 - Function
 - Quality of life
 - Adverse effects
 - Aberrant behavior
 - Achievement of goals of care
- Urine drug screens
- Pill counts
- Documentation

Biologic Drug Monitoring

Types of Testing

- Forensic Drug Testing
 - Used to identify substances that should not be present
 - Admissible in a court of law

- Compliance Testing
 - To detect the presence of a prescribed medication
 - To identify illicit or non-prescribed substances

Detection Times of Drugs in Different Biologic Specimens

Specimen	Detection Time Range
Blood	Minutes to Hours
Saliva	Minutes to Hours
Urine	Hours to Days
Sweat	Days to Weeks
Hair & nails	Weeks to Years

Caplan YH, Goldberger BA. J Anal Toxicol. 2001;25:396-399.

Drug Screening: Hair

- Pros
 - Hair provides a retrospective, long-term measure of drug use directly related to hair length
 - Hair can extend window of detection to weeks, months, or even years

- Cons
 - Dark hair has a greater capacity to bind a drug than fair or gray hair, leading to the claim that hair analysis might have a hair color bias
 - Irregular growth, accessibility of specimen, labor-intensive sample preparation and testing, and excessive cost
 - Clinicians may be unprepared to address unanticipated results

Drug Screening: Saliva

- Pros
 - Ease of collection, minimal personal invasiveness, and limited pre-analytical manipulation
- Cons
 - Drugs and/or their metabolites are generally proportional to those in plasma; they are retained for a shorter period and at lower concentrations compared with urine
 - Clinicians may be unprepared to address unanticipated results

Drug Screening: Blood

- Pros
 - Relative ease of collection
- Cons
 - Generally not recommended for routine testing because it is not amenable to rapid screening procedures, has low drug concentrations with relatively limited detection windows, and requires invasive collection
 - Clinicians may be unprepared to address unanticipated results

Drug Screening: Sweat

- Pros
 - Noninvasive cumulative measure of drug use over a period of days to weeks
- Cons
 - Varying sweat production and risk of accidentally removing or contaminating collection device
 - Clinicians may be unprepared to address unanticipated results

Drug Screening: Urine


- Pros
 - Generally considered most effective biologically-based method for determining presence/absence of most drugs
 - Has 1 to 3 day window of detection for most drugs
 - Can detect parent drug and/or its metabolite(s) and thus can demonstrate recent use of prescription medications and illegal substances
- Cons
 - Not all substances can be detected
 - Immunoassays may cause false-positive and false-negative results, causing misinterpretation
 - Many potentially confounding metabolic and technical factors
 - Clinicians may be unprepared to address unanticipated results

Retention Time in Urine


Drug	Approximate Retention Time
Amphetamines	48 hours
Barbiturates	Short-acting (e.g. secobarbital), 24 hours Long-acting (e.g. phenobarbital), 2-3 weeks
Benzodiazepines	3 days, if therapeutic dose ingested Up to 4-6 weeks after extended dosage (i.e. 1 or more years)
Ethanol	2-4 hours
Methadone	Approximately 3 days
Propoxyphene	6-48 hours
Cannabinoids	Moderate smoker (4 times/wk) 5 days Heavy smoker (smoking daily) 10 days Chronic smoker 20-28 days


Urine Testing Methodologies (qualitative +/-)

Point of Care Testing (POCT)




Enzyme Immunoassay (EIA & Elisa)






Testing Methodologies (Quantitative ng/ml)


(FPIA) Fluorescence Polarization Immunoassay



GC/MS
Gas Chromatography/Mass Spectrometry



LC/MS/MS
Liquid Chromatography/ Tandem Mass Spectrometry



Considerations for Laboratory Result Interpretation

- Specimen Validity/Tampering – pH, SG, Creatinine, Temperature
- Cut Off Levels – DOT/workplace vs. specialized lab
- Qualitative vs. Quantitative Testing
- Cross Reactivity
- Sensitivity & Specificity
- Expected Drug Range – compared to normalized value (adjusted value based on urine pH, specific gravity, and lean body weight)

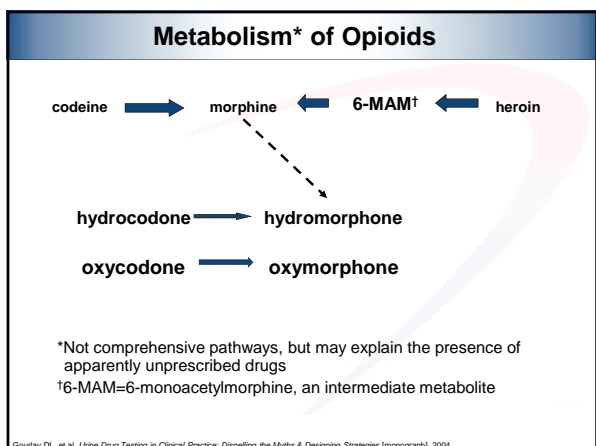
Clinical Interpretation

- Categories
 - Prescription
 - Illicit
- Data on Specific Drugs
 - Positive or negative (IA)
 - Raw levels – (LC/MS)
 - Normalized levels - adjusted value based on urine pH, specific gravity, and lean body weight

False Positives	
Nasal decongestants	False + amphetamines
Ibuprofen	False + marijuana
Synthetic PCN	False + cocaine
OTC nasal decongestants	False + opiates
Meperidine	False + opiates
Amitriptyline	False + opiates
Quinine	False + opiates
OTC nighttime cold/ sleep meds	False + methadone
Diazepam	False + PCP
Diphenhydramine	False + PCP

References: Drug Testing Service, Department of Health & Human Services, Substance Abuse and Mental Health, Division of Workplace Program, San Diego Reference Laboratory Toxicology Lab, Technical Brief, Dr. Joseph Grass Ph.D.

- ### Additional Factors to Consider
- Metabolism
 - Genetic polymorphisms
 - Renal and hepatic function
 - Polypharmacy



Ethical/Practical Considerations

Review and discuss results with patient

Opportunity to review treatment agreement

- Patient education
- Fact finding with patient

Options for confirmed positive urine test

- Consider inadequate pain relief
- Provide non-opioid options and non pharmacological options
- Increase monitoring (pill count and shorter refill time)
- Referral to addictionologist drug rehabilitation program

Ethical/Practical Considerations

Discontinuation of opioid prescribing

- Continue other modalities of treatment
- Referrals as indicated
- Adequate supply of opioid with tapering protocol
- Side effect management of withdrawal
- Document revised treatment plan
- Follow up

Standards of Practice

Opioid treatment guidelines

- Chou, et al. (2009). Journal of Pain

Federation of State Medical Boards Model Policy for the use of controlled substances

www.painpolicy.wisc.edu

Dispensing of controlled substances for treatment of pain

www.deadiversion.gov

State regulations

www.painpolicy.wisc.edu

Standards of Practice

State pharmacy regulations

- See individual state policies

Individual state prescription monitoring program

American Society for Pain Management Nursing

www.aspmn.org

Discussion

Questions?

Save the Dates For These Future Webinars:

- April 9 – Noon CT – 1 pm CT – *Role of the Advanced Practice Nurse*
Barbara St. Marie, MA RN, CS, ANP-BC, GNP-BC
- May 17 – Noon CT – 1 pm CT -- *Risk and Benefits of Opioids in the Management of Persistent Pain*
Paul Arnstein, PhD, RN, ACNS-BC, FNP-C, FAAN
- May 22 – Noon CT – 1 pm CT -- *Managing Chronic Pain in the Patient with Addictive Disorders*
Paul Arnstein, PhD, RN, ACNS-BC, FNP-C, FAAN
