Medication Use & Chronic Pain Control: Managing Tolerance, Dependence, Addiction & Aberrant Medication Taking Behavior

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Scenario 1

- PO is a 50 y/o female w/ MRI proven bulging disk @ L4-L5
  - She received hydrocodone/apap 5/500 #28 (sig: 1 qid prn pain) 5 days ago
  - She now calls you 2 days early for a refill and states the medication is not strong enough

Scenario 2

- JS is a 54 y/o male w/ chronic low back pain secondary to degenerative disk disease. You have seen him for 2 years w/ no inappropriate behavior. He has been receiving hydrocodone/apap 5/500 1 qid prn pain for the past 2 years
  - He calls you today stating that his medication was stolen during a family gathering at his house

Scenario 3

- RS is a 35 y/o male referred to your clinic for evaluation of chronic low back pain. He has been receiving hydrocodone/apap 5/500 1 qid prn pain per the chart notes. There have been several instances of lost/stolen prescriptions or requests for early refill of medication.
  - Two weeks after his first visit w/ you RS calls stating that his medications were stolen and asks for an early refill

Scenario 4

- GH is a 76 y/o male on hospice for small cell lung cancer. He has been receiving hydrocodone/apap 5/500 1 qid prn pain.
  - GH calls for a refill of his pain medications and also asks for a refill of the morphine that you have been giving him. When you mention to him that you have not been prescribing morphine he hangs up.
  - A review of his pharmacy profile reveals that he has been receiving morphine from numerous providers in town.

Balancing Act

- 2.1 million adolescents 12 or older tried prescription medication for non-medical uses (SAMHSA 2007)
- The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has now officially recognized that pain is a major health problem and "patients have the right to appropriate assessment and management of pain" (JCAHO, 2000).
- Vicodin use in the past year was reported by 2.7 percent of 8th-graders, 7.2 percent of 10th-graders, and 9.6 percent of 12th-graders, remaining stable at relatively high levels for each grade. (NIDA webpage, 2008)

Thoughts to Consider

- Chronic pain is a chronic disorder & treatment of chronic pain is associated w/ predictable ADRS as w/ ANY other chronic condition
- Nothing gets better w/o diet & exercise
- Healing begins w/ a good nights sleep
- Nothing responds to medications alone
- Rarely does anything respond to only one medication; polypharmacy may be a good thing
- Maximize non-opiate solutions

Thoughts to Consider

- The incidence of alcoholism and addiction in the general population is 5%-10%
  - Therefore most healthcare providers ARE NOT alcoholics/addicts
  - Differences in "cross-cultural" communication
  - Differences in "cross-cultural" values
  - Ability to suspend "cultural" values

Thoughts to Consider

- In patients w/ chronic pain also need to consider:
  - Depression/Anxiety
  - PMH of sexual or physical abuse/PTSD
  - PMH of substance abuse/Addiction
  - PMH of ADD (~ 70% of pts w/ ADD have SUD)
  - Obesity/Sleep apnea
  - TSH level

Thoughts to Consider

- Pain DOES NOT equal Percocet
- Many situations can be made *worse* by giving more medication
- Chronic administration of high dose (ie: 100 mg MSO4 or equivalent/day) may lead to chronic pain
  - Decreased production of natural endorphins/enkephalins
  - Increase in Na-dependent pain receptors
  - Making of a “Pain Cripple”
  - Analogy to steroids

Introduction

- Opioids and Chronic Pain: Efficacy
- Numerous studies demonstrate analgesic efficacy in chronic pain
  - Typically relatively short in duration
- Benefit does not appear to be sustained over long period of time
  - Continuous and long-term therapy often associated with loss of analgesic efficacy

Ballantyne JC et al. Clin J Pain 2008.

Introduction

- Key Terms and Concepts
  - Physical Dependence
  - Tolerance
  - Opioid induced hypergesia
  - Aberrant drug-related behavior
  - Substance Misuse Abuse
  - Addiction
  - Pseudoaddiction

Definitions

- **Physical Dependence**
  - Potential for abstinence on abrupt discontinuation or dose reduction, or administration of an antagonist
  - Highly variable phenomenology
    - Tachycardia, tachypnea
    - Nausea/vomiting, diarrhea, abdominal cramps
    - Sweating, rhinorrhea, piloerection
    - Anxiety, insomnia
    - Myalgias and arthralgias

Definition

- **Physical Dependence**
  - Not a problem if abstinence is avoided
  - Theoretical connection to the genesis of addiction/relapse, but neither necessary nor sufficient
  - **<u>Should never be labeled "addiction"</u>**

Definition

- **Tolerance**
  - Declining effect with drug exposure
  - Tolerance to side effects is desirable; tolerance to analgesia may be a problem
  - Large clinical experience is reassuring
  - Theoretical connection to the genesis of addiction/relapse, but neither necessary nor sufficient
  - **<u>Should never be labeled "addiction"</u>**

Definition

- Opioid Induced Hypergesia
  - Paradoxical, abnormal pain secondary to prolonged use of opioids
    - Possibly secondary to
      - Decreased production of natural endorphins/enkephalins
      - Increase in Na-dependent pain receptors

Definition

- **Aberrant Drug-Related Behavior**
  - Problematic behaviors or “red flags” for clinicians
  - Culture-bound, but defined by conventional practice, and by laws and regulations
  - Should be viewed as “data,” which must be interpreted in a differential diagnosis of addiction

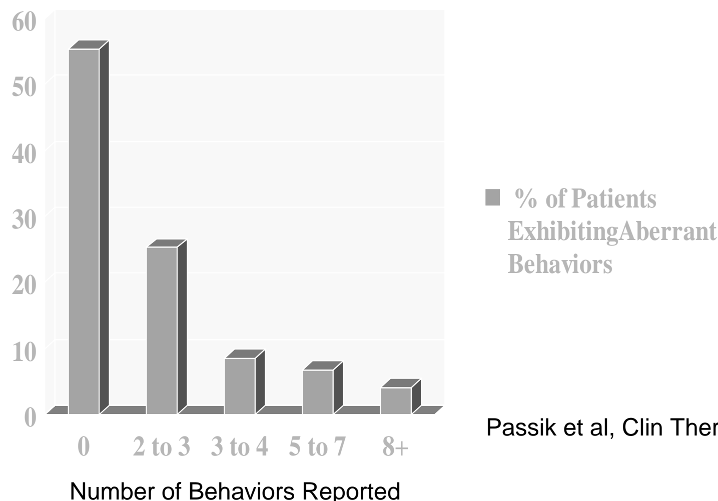
Definition

- **Aberrant Drug-Related Behavior (cont’d)**
  - Aggressive complaining
  - Drug hoarding when symptoms milder
  - Requesting specific drugs
  - Acquisition of drugs from other medical sources
  - Unsanctioned dose escalation once or twice
  - Use of the drug to treat another symptom
  - Reporting unintended psychic effects
  - Occasional impairment

Definition

- **Aberrant Drug-Related Behavior (cont'd)**
  - Selling prescription drugs
  - Prescription forgery
  - Stealing or "borrowing" drug from another person
  - Injecting oral formulation
  - Obtaining prescriptions from non-medical source
  - Multiple episodes of prescription "loss"
  - Concurrent abuse of related illicit drugs
  - Multiple dose escalations despite warnings
  - Repeated gross impairment or dishevelment

Survey of Aberrant Drug-Related Behaviors (n = 388)



Number of Behaviors Reported

Passik et al, Clin Ther, 2004

Definition

- Substance Misuse
  - Use of any drug in a manner other than how it is indicated or prescribed
  - Commonly includes running out early of medication or self-medication for reasons other than pain

Definition

- **Abuse**
  - Drug use outside of socially accepted norms
  - Includes any use of an illicit drug and some degree of aberrant use of prescription drugs
  - DSM IV: Psychoactive Substance Abuse
    - A maladaptive pattern of drug use that results in harm or places the individual at risk

Definition

- **Addiction**
  - Chronic disease with genetic, psychosocial, and environmental/situational influences, which can be induced in vulnerable people exposed to potentially abusable drugs
  - DSM IV definition of "substance dependence" refers to addiction, but problematic in patients with chronic pain

Definition

- **Task Force of APS, AAPM, and ASAM: New definition of addiction**

  A primary, chronic, neurobiologic disease, with genetic, psychosocial, and environmental factors influencing its development and manifestations. It is characterized by behaviors that include one or more of the following:
  - *impaired control over drug use*
  - *compulsive use*
  - *continued use despite harm*
  - *craving*

Definition

- **Pseudoaddiction**
  - Aberrant drug-related behavior in patients reacting to under treatment of pain
  - Diagnostic challenge: May co-exist with addiction or other psychiatric disorders

Opioid Therapy: Judging Initial Risk

- Studies suggesting specific predictors of problematic use
  - Prior history of substance abuse (Michna et al, J Pain Symptom Manage, 2004)
  - Need to increase the dose, considering oneself addicted, and preference for a specific route (Compton et al, J Pain Symptom Manage, 1998)
  - Focus on opioids during visits, need for early refills or dose escalation, multiple calls or early visits, other prescription problems, and obtaining opioids from other sources (Chabal et al, Clin J Pain, 1997)

Opioid Therapy: Judging Initial Risk

- Clinical experience suggests other factors:
  - Family history of substance abuse
  - Any major psychiatric pathology
  - Heavy tobacco or alcohol use
  - History of criminal activity
  - History of physical/sexual abuse
  - Contact with high risk people or environments
  - Chaotic home situation
  - Family history of major psychiatric pathology

Opioid Therapy: Judging Initial Risk

- Most important factors:
  - Prior history of substance abuse
  - Family history of substance abuse
  - Major psychiatric pathology

Opioid Therapy: Judging Initial Risk

- Future Predictors
  - Presence or absence of PTSD
  - Neurobiological markers

A Sample of Validated Tools to Evaluate Risk

Name	Date	Number of Questions	Type of Interview
Prescription Drug Use Questionnaire (PDUQ)	1998	42	structured
Screening Tool for Addiction Risk (STAR)	2003	14	self
Pain Assessment and Documentation Tool (PDAT)	2004	41	structured
Pain treatment Satisfaction Scale (PTSS)	2004	69	structured
Satisfaction with Pain Medication (SPM)	2004	14	self
Opioid Risk Tool (ORT)	2005	5	self
Addiction Behaviors Checklist (ABC)	2006	20	structured
Screener and Opioid Assessment for Patients with Pain (SOAPP)	2006	24/14	self
Pain Medication Questionnaire (PMQ)	2006	26	self
Current Opioid Misuse Measure (COMM)	2007	17	self

Data to Evaluate Risk

- Contracts
- Urine Tox Screens
- Databases
- NMBOP Controlled Substance Monitoring Program
  - signing up & access
- Pharmacy records
- Previous chart notes
- My chart notes & experience

Evaluation – Personal and Family History

- How do you ask those questions?
  - Open-ended questions mostly
    - The format of the question may dictate the answer
  - Remove stigma
  - Ask specifics, not only if they used or when
    - Last use, average use per week, most drank/used at a single sitting or single day
    - Lost work or DUI/DWI

Evaluation (continued)

- Ongoing evaluation of aberrant behaviors
- Ongoing evaluation of medication use
- The 4 "A"s: (Passik et al)
  - Analgesia
  - ADLs
  - Adverse Effects
  - Abuse issues

Principles of Management

- Assess the patient frequently
  - Assess risk for opioid misuse/abuse
- frequent visits and small quantities
  - For high-risk patients
- Provide written guidelines of expectations and responsibilities (treatment agreements)
- Urine drug screening
- Long-acting opioids with no rescue doses
- Consider referrals / consults
- *Universal Precautions*

10 Steps

1. Diagnosis with appropriate differential
2. Psychological assessment including risk of addictive disorders
3. Informed consent
4. Treatment Agreement
5. Pre- and Post- Intervention assessment of pain level <u>and</u> function

   * ***Trial of therapy*** discontinued if no benefit

10 steps (continued)

6. Appropriate trial of opioid medication ± adjuvant medications
7. Regular reassessment of pain score and level of function
8. Regularly assess the 4 A's of pain

   * analgesia, adverse effects, aberrant behaviors, ADLs
9. Periodically review pain diagnosis and comorbid conditions (including addictive disorders)
10. Documentation

Pharmacologic Options

- Adjuvant Medications
  - TCA, Dual-Acting Agents
  - NSAID
  - Muscle Relaxers
  - Neuropathic Agents
- Tramadol
- Coming Attractions
  - Imbedded Niacin
  - Imbedded antagonists
  - Tapentadol

Non-Pharmacologic Options

- Non-Pharmacologic Options
  - Injections: epidural, facet, trigger point
  - Non-Traditional: chiropractor, massage, acupuncture
  - SLEEP: evaluate for sleep apnea; utilize CPAP

Conclusion

- As with any medication therapy, use of opioids is a double-edged sword
- As with any chronic medication, safe and effective opioid therapy requires careful assessment and re-assessment
- Aberrant drug taking behavior is a continuum of behaviors and a natural consequence of opioid therapy
- Numerous tool exist to assess patients at high risk; none in wide spread use; question efficacy in real-life practice settings
- Clinical experience may also be used to assess patients for high risk behavior
- In the future neurobiological marks may be widely used to predict those at high risk for aberrant behavior

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