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 with 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


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
  ● *Should never be labeled* “addiction”
**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
- **Should never be labeled “addiction”**

**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

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)

- 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

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

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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 and 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

- 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 reassessment
- Aberrant drug taking behavior is a continuum of behaviors and a natural consequence of opioid therapy
- Numerous tools exist to assess patients at high risk; none in widespread 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

References

References