Management of Chronic Pain

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Learning Objectives
1. Identify pain as the 5th vital sign.
2. List several illnesses and conditions associated with chronic pain.
3. Identify mechanisms for quantifying pain.
4. Recognize potential challenges in the management of chronic pain.
5. Describe pharmacologic therapy of chronic pain.
6. Describe opiate side effects and withdrawal.
7. Identify the differences between tolerance, physical dependence, addiction and pseudoaddiction.
8. Identify key facts regarding urine drug testing.

Acknowledgements
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• Robert Newman, MD, Vice-Chairman, Dept. of Family Medicine, Brody School of Medicine
• John Purvis MD, Associate Residency Director, Tallahassee Memorial Hospital

1. Which of the following statements regarding pain is true:
   A. Pain is always associated with tissue damage
   B. Pain is the 5th vital sign
   C. Pain is the 3rd most common reason why patients seek medical attention
   D. Non cardiac chest pain is primarily neuropathic
   E. Chronic pain affects over 50% of the US population each year

Pain

“An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.”

International Association for the Study of Pain (IASP)
Classification of Pain

**Acute Pain**
- Relatively brief duration (hours to weeks)
- Postsurgical pain, trauma, disease process

**Chronic Pain**
- Longer in duration (months to years)
- Usually accompanies a disease process or injury
- Rheumatoid arthritis, osteoarthritis, lower back pain, shoulder pain, pain associated with malignancy

Classification of Pain

**Epidemiology of Pain**

- Each year, between 15% and 20% of the US population experiences acute pain
- Chronic pain affects approximately 30% of the US population annually
- Pain is the most common reason patients seek medical attention

Epidemiology of Pain

2. Which of the following illnesses has the highest prevalence of chronic pain the USA:
   - A. Back pain ✓
   - B. Arthritis
   - C. Headache
   - D. Diabetes
   - E. Fibromyalgia

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   - C. Headache
   - D. Diabetes
   - E. Fibromyalgia

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### Prevalence of Pain in Selected Chronic Illnesses

<table>
<thead>
<tr>
<th>Disease</th>
<th>USA Prevalence (millions)</th>
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<tbody>
<tr>
<td>Back Pain</td>
<td>54.6</td>
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<tr>
<td>Arthritis</td>
<td>43</td>
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<tr>
<td>Chronic Headache</td>
<td>40</td>
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<tr>
<td>Osteoporosis</td>
<td>25</td>
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<tr>
<td>Diabetes</td>
<td>15.7</td>
</tr>
<tr>
<td>Rheumatoid Arthritis</td>
<td>2.5</td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td>2</td>
</tr>
</tbody>
</table>

Arthritis Foundation, American Diabetes Association, National Institute of Neurologic Diseases and Stroke, 1997-1999

### 3. Which of the following statements is correct:

- A. Depression is not commonly associated with chronic pain
- B. On a numerical pain scale, 10 usually represents true happiness
- C. Inadequate training is not a barrier to effective pain management
- D. JCAHO is unconcerned with identifying patients with pain within a hospital environment
- E. Patients from ethnic minorities and cultures different from the health care professionals treating them receive inadequate pain management

### Chronic Pain – Associations

- Insomnia
- Anxiety
- Depression
- Weight loss
- Decreased quality of life

### Domains of Chronic Pain

- Quality of life
- Psychological morbidity
- Social consequences
- Economic consequences

### Barriers to Effective Pain Management

- Inadequate training in pain management
- Poor methods of pain assessment
- Provider concerns
  - Regulation of controlled substances
  - Tolerance
  - Addiction
  - Management of side effects
Management of Chronic Pain

**JCAHO – Pain Management Standards**

- **Patient Rights**
  - Appropriate assessment and management of pain
  - Care decisions
- **Assessment of Patients**
  - Identification of patients with pain
- **Care of Patients**
  - Safe medication prescribing

- **Education**
  - Making sure patients and families understand pain and the importance of pain management
- **Continuum of Care**
  - Provides for continuing pain management needs in discharge planning
- **Improving Organization Performance**

**Assessment of Pain Intensity – Verbal**

- No pain
- Mild pain
- Moderate pain
- Severe pain
- Very severe pain
- Worst possible pain

**Assessment of Pain Intensity – Numerical Scale**

- 0 ---- No pain
- 1
- 2
- 3
- 4
- 5 ---- Moderate pain
- 6
- 7
- 8
- 9
- 10 ---- Worst possible pain

**Assessment of Pain Intensity – Visual Analog Scale**

- Worst possible pain
- No pain

**Assessment of Pain Intensity – Faces Scale**

- 0 🥰
- 1 😊
- 2 😞
- 3 😞
- 4 😞
- 5 😞
Cultural Aspects of Pain

• Patients from ethnic minorities and cultures different from the health care professionals treating them receive inadequate pain management.
• Physicians from a stoical culture are likely to be more attentive to the patient who is stoical.
• The culture of pain in mainstream American culture tends to teach the hurting person to be stoical and the attending person to honor that stoicism.

Federation of State Medical Boards Pain Treatment Guidelines

• The Federation of State Medical Boards has written the Model Policy for the Use of Controlled Substances for the Treatment of Pain.
• These guidelines are for use by all State Medical Boards with specific recommendations for practicing physicians.
• Neither consultation nor a pain contract are required in these guidelines.

Federation of State Medical Boards Pain Treatment Guidelines

• Documentation of a complete history and physical examination
• Documentation of the patient's treatment plan, including ways to measure treatment response
• Documentation of informed consent of the risks and benefits

Management of Chronic Pain

Pain Location

Cultural Aspects of Pain

• It is important to understand how his or her own upbringing affects attitudes about pain.
• It is important to overcome the belief that one's own reaction to pain is "normal" and that other reactions are "abnormal."
• Even subtle cultural and individual differences between patient and physician, particularly in nonverbal, spoken, and written language, can affect care.
Chronic Pain - Management

- Assessment/reevaluation
- Social/rehabilitative issues
- Physical modalities
  - Physical/occupational therapy
- Non-pharmacologic therapies
  - Cognitive-behavioral
- Pharmacologic therapies
- Neural blockade
- Implantable devices

Patient Assessment/Reevaluation

- The 4 “A’s” of Pain
  - Analgesia
  - Activities of daily living
  - Adverse effects
  - Aberrant drug-taking behaviors

4. Which of the following statements regarding pharmacotherapy in chronic pain is true:

A. Combination drug therapy is preferred to monotherapy
B. Agents effective against pain should be continued despite intolerable side effects
C. TCA antidepressants have demonstrated efficacy in the treatment of diabetic neuropathy
D. Phenytoin (Dilantin) is FDA approved for the treatment of post-herpetic neuralgia
E. Cessation of chronic Carisoprodol (Soma) use is not associated with withdrawal symptoms

Pharmacotherapy Guidelines

- Monotherapy if possible
  - Titrate only 1 drug at a time
- Pain relief
- Improved function
- Limited side effects
- Recognition that each patient is different
  - Individual variation in response

Pharmacotherapy Guidelines

- Slow titration until:
  - Significant pain relief
  - Intolerable side effects
  - Toxic serum levels
- Patient education
Pharmacologic Agents

- Acetaminophen (e.g., Tylenol)
- NSAIDs
  - Traditional
  - Cox-2 agents
- Opioids

Pharmacologic Agents

- Adjuvant agents
  - TCA
  - Anticonvulsants
  - Neuroleptics
  - Centrally acting alpha adrenergic agents
  - Muscle relaxants
  - Topical anesthetics

Antidepressants

- TCA
  - Amitriptyline (Elavil)
- SSRI
- Others
  - Duloxetine (Cymbalta)

Antidepressants

- Demonstrated benefit in randomized studies

<table>
<thead>
<tr>
<th>Illness</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetic neuropathy</td>
<td>1.7</td>
</tr>
<tr>
<td>Postherpetic neuralgia</td>
<td>1.4</td>
</tr>
<tr>
<td>Tension type headache</td>
<td>1.1</td>
</tr>
<tr>
<td>Migraine</td>
<td>0.8</td>
</tr>
<tr>
<td>Atypical facial pain</td>
<td>0.8</td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Anticonvulsants

- FDA indication for chronic pain
  - Carbamazepine (e.g., Tegretol)
  - Divalproex sodium (e.g., Depakote)
  - Gabapentin (e.g., Neurontin)
  - Pregabalin (Lyrica)
  - Topiramate (e.g., Topamax)

Anticonvulsants

- Post-herpetic neuralgia
  - Gabapentin (e.g., Neurontin)
  - Pregabalin (Lyrica)
- Diabetic neuropathy
  - Carbamazepine (e.g., Tegretol)
  - Phenytoin (e.g., Dilantin)
  - Gabapentin (e.g., Neurontin)
  - Pregabalin (Lyrica)
  - Lamotrigine (e.g., Lamictal)
Anticonvulsants

- HIV-associated neuropathy
  - Lamotrigine (eg, Lamictal)
- Trigeminal neuralgia
  - Carbamazepine (eg, Tegretol)
  - Lamotrigine (eg, Lamictal)
  - Oxcarbazepine (eg, Trileptal)

Centrally Acting Alpha Adrenergic Agents

- Clonidine (eg, Catapres)

Centrally Acting Alpha Adrenergic Agents

- Trigeminal neuralgia
- Chronic back pain
- Chronic headache
  - Cluster headache
  - Tension type headache
- Spastic torticollis
- Neuropathic pain

Muscle Relaxants

- Cyclobenzaprine (eg, Flexeril)
- Carisoprodol (eg, Soma)
- Methocarbamol (eg, Robaxin)
- Metaxalone (eg, Skelaxin)
- Orphenadrine (eg, Norflex)
- Tizanidine (eg, Zanaflex)

Muscle Relaxants

- Centrally acting
- Nocturnal muscle spasms
- Anticholinergic side effects
- Carisoprodol (eg, Soma)
  - Centrally acting
  - Muscle spasms
  - Withdrawal side effects
    - Agitation, anorexia, hallucinations, seizures

5. Which of the following statements is true:

A. Topical analgesics typically are associated with systemic side effects
B. Topical analgesics typically are associated with multiple drug interactions
C. Capsaicin is used for neuropathic pain
D. EMLA is FDA approved for Rx of pain
E. Lidocaine 5% patch (Lidoderm) is effective when applied anywhere on the body, not just over the site of pain
5. Which of the following statements is true:

- 12%: A. Topical analgesics typically are associated with systemic side effects
- 7%: B. Topical analgesics typically are associated with multiple drug interactions
- 7%: C. Capsaicin is used for neuropathic pain
- 4%: D. EMLA is FDA approved for Rx of pain
- 4%: E. Lidocaine 5% patch (Lidoderm) is effective when applied anywhere on the body, not just over the site of pain

**Topical Analgesics**

- Active within the skin, peripheral nerves
- No significant serum levels of drug
- No significant systemic side effects
- Relatively free of drug interactions

**Topical Analgesics**

- ASA
- Capsaicin
  - Neuropathic pain & DJD
  - Effectiveness limited by side effects & compliance
- Local anesthetics
  - EMLA
    - Eutectic mixture of lidocaine & prilocaine
    - Not FDA approved for pain
  - Lidocaine patch 5% (Lidoderm)

**Topical Lidocaine Patch 5% (Lidoderm)**

- Up to 3 patches daily over painful site
  - 12 hrs on/off
- Side effects
  - Application site sensitivity
  - Systemic side effects rare
- Mechanical barrier may decrease allodynia
- Efficacy demonstrated for post-herpetic neuralgia

6. Which of the following statements regarding opioids is true:

- 12%: A. Opioids have been shown to be effective for cancer-related pain, but not for neuropathic pain
- 7%: B. A realistic goal of opioid therapy is complete pain relief
- 7%: C. The CAGE questionnaire is a good screen for EtOH abuse, but not substance abuse
- 4%: D. It is unnecessary to identify individuals at risk for substance abuse prior to beginning opioid therapy
- 4%: E. Treatment should begin with short-acting agents, then titrated to optimal effect
6. Which of the following statements regarding opioids is true:

- **A.** Opioids have been shown to be effective for cancer-related pain, but not for neuropathic pain
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- **C.** The CAGE questionnaire is a good screen for EtOH abuse, but not substance abuse
- **D.** It is unnecessary to identify individuals at risk for substance abuse prior to beginning opioid therapy
- **E.** Treatment should begin with short-acting agents, then titrated to optimal effect

Efficacy of Opioids for Chronic Pain

- Good evidence for effectiveness in pain from
  - Osteoarthritis
  - Neuropathic pain
  - Back pain
  - Cancer-related pain

Opioid Therapy – Realistic Goals

- Reach agreement with patient on shared goals of treatment
- Complete pain relief rarely achieved
- Common goals include
  - Pain reduction
  - Improvement in selected areas of function
  - Improved mood
  - Improved work

Opioid Therapy

- Patient education
- Treatment agreement and informed consent forms
- Begin with short-acting agents
- Titrate to optimal effect
- Aggressively manage side effects
- Document exit strategies

Selecting Patients for Narcotic Therapy

- What is the diagnosis?
- Assessment for addiction
- Check criminal record
  - [www.doc.state.nc.us/offenders](http://www.doc.state.nc.us/offenders)
- Narcotics contract essential – informed consent
- Drug screening every 6 months
- Reassessment
  - Is the medication improving function?
  - If not, implement exit strategy.

Screening for Substance Use Disorders

- Does patient identify drug(s) of choice for emotional symptoms?
  - Determine quantity, frequency, and duration of use for each drug of choice
- Has patient had formal treatment for substance use disorders?
- Is there a family history of substance use and/or other psychiatric disorders?
Pain Assessment: Substance Abuse History Using the CAGE Questionnaire as a Screening Tool

- **Cut down**
  - ("Ever felt you needed to cut down your use of ____?")
- **Annoyed**
  - (With others' comments about your drug use?)
- **Guilt**
  - (About your use of ____?)
- **Eye opener**
  - ("Need to use in AM to function?")

7. Which of the following statements regarding opioids is true:

A. There are 3 opioid receptors: phi, beta & kappa
B. Morphine is available in both short- and long-acting preparations
C. Oxycodone is roughly 3x as potent as methadone
D. When pain is not controlled, a long-acting narcotic dose should be increased by 10%
E. Opioids should be routinely rotated to ensure effectiveness

Opioid Receptors

- **Three opioid receptor classes**
  - **Mu**
    - Morphine
  - **Kappa**
    - Butorphanol
  - **Delta**
    - Enkephalins

Short-Acting Opioids

- Morphine sulfate (eg, Roxanol and MSIR [off market])
- Codeine
- Hydrocodone (eg, Zydol, Vicodin, Lortab, Lorcet, Norco, Vicoprofen)
- Oxycodone (Percocet, Tylox, Percodan)
- Hydromorphone (eg, Dilaudid)
- Oxymorphone (Opana)
- Fentanyl (eg, Actiq)

Long-Acting Opioids

- Methadone (eg, Dolophine, Methadose)
- Sustained-release morphine (eg, MS Contin, Avinza, Kadian, Oramorph)
- Sustained-release oxycodone (eg, Oxycontin)
- Buprenorphine/naloxone (Suboxone)
- Transdermal fentanyl (eg, Duragesic)
### Narcotics – Equianalgesic Doses

<table>
<thead>
<tr>
<th>Drug</th>
<th>Proprietary Name</th>
<th>PO (mg)</th>
<th>IM (mg)</th>
<th>½ life (hrs)</th>
<th>Duration (hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>Roxanol, MSIR [off market]</td>
<td>20-30</td>
<td>10</td>
<td>2-3</td>
<td>2-4</td>
</tr>
<tr>
<td>Morphine CR</td>
<td>MS Contin</td>
<td>20-30</td>
<td>10</td>
<td>2-3</td>
<td>8-12</td>
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<tr>
<td>Morphine SR</td>
<td>Avinza</td>
<td>20-30</td>
<td>10</td>
<td>2-3</td>
<td>24</td>
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<th>IM (mg)</th>
<th>½ life (hrs)</th>
<th>Duration (hrs)</th>
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<tbody>
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<td>Oxycodone</td>
<td>Percocet</td>
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<td>Oxycodone CR</td>
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### Narcotics – Equianalgesic Doses

<table>
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<tr>
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<th>Brand Name</th>
<th>PO (mg)</th>
<th>IM (mg)</th>
<th>½ life (hrs)</th>
<th>Duration (hrs)</th>
</tr>
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<tbody>
<tr>
<td>Buprenorphine</td>
<td>Subatex, Butrans</td>
<td>0.4</td>
<td>0.3</td>
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<td>Codeine</td>
<td></td>
<td>180</td>
<td></td>
<td>3-4</td>
<td></td>
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<tr>
<td>Fentanyl</td>
<td>Sublimaze</td>
<td>250 mcg</td>
<td>IV = 4 mg/hr</td>
<td>7-12</td>
<td></td>
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<td>Fentanyl TTS</td>
<td>Duragesic</td>
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<td>18-72</td>
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<tr>
<td>Hydrocodone</td>
<td>Lortab, Vicodin</td>
<td>30</td>
<td></td>
<td>2-4</td>
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### Deciding to Convert From a Short-Acting to a Long-Acting Opioid

<table>
<thead>
<tr>
<th></th>
<th>Short-Acting</th>
<th>Long-Acting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantages</td>
<td>Fast-acting</td>
<td>Analgesic stability</td>
</tr>
<tr>
<td>Disadvantages</td>
<td>Need for repetitive dosing</td>
<td>Delayed onset</td>
</tr>
</tbody>
</table>

### Conversion to Long-Acting Opioid

- With chronic pain, conversion from a short-acting to a long-acting opioid can be a reasonable choice for overall pain management.
- Long-acting opioids may provide a more stable blood level and have less dangerous side effects.

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Treatment of Breakthrough Pain

• If the patient’s baseline pain is uncontrolled, most experts would recommend increasing the long-acting opioid by:
  – 20-25% for mild to moderate pain
  – 50-100% for severe pain

Rationale for Opioid Rotation

• Ineffectiveness of initial opioid
• Adverse effects/toxicity of initial opioid
• Inter-patient variability of response
• Incomplete cross-tolerance

Fentanyl Patch (Duragesic) – Advantages

• 25 mcg/hr of the fentanyl patch (Duragesic) is equivalent to 60-135 mg per day of orally administered morphine
• Can provide pain control in patients who are unable to swallow medications
• Can be applied by the patient, a family member or other caregiver

Fentanyl Patch (Duragesic)

• Contraindications
  – Not opioid tolerant
  – Acute pain or pain of short duration
  – Post-op pain
  – Mild pain
  – Intermittent pain

Buprenorphine Patch (Butrans)

• Newly FDA approved for chronic pain
• 5 mcg/hr in patients who were receiving a total daily morphine dose or equivalent of less than 30 mg
• 10 mcg/hr in patients who were receiving a total daily morphine dose or equivalent of 30-80 mg
• Titrate to pain control at min 72 hrs
• Maintenance dose = 20 mcg/hr – change patch every 7 days

8. Which of the following is correct:

A. Constipation is rarely seen with opioid use
B. Respiratory depression is a concerning side effect of opioid use
C. Withdrawal symptoms are not seen with cessation of long-acting narcotics, i.e., methadone
D. Miosis is noted during opioid withdrawal
E. Opioid withdrawal precipitated by narcotic antagonists is typically mild, and not life threatening
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Opioid Side Effects

- Nausea/vomiting
- Sedation
- Respiratory depression
- Constipation
- Dizziness/orthostatic hypotension
- Mental confusion
- Itching
- Edema
- Decreased libido

Opioid Withdrawal

- After cessation of opioid
- Use of partial agonists
  - Buprenorphine (Buprenex)
- Use of agonist-antagonists
  - Pentazocine (Talwin), nalbuphine (Nubain)
- Use of antagonist
  - Naloxone (Narcan)

- May begin 6 to 12 hours after the last dose of a short-acting opioid
  - Persist for several days
- 24 to 48 hours after cessation of methadone
  - Persist for several weeks
- May begin immediately after reversal with antagonist
  - Potentially life threatening
- Peak within 24 to 48 hours of onset

- Symptoms
  - Nausea, vomiting
  - Abdominal pain
  - Diarrhea
  - Goose bumps
  - Excessive yawning
  - Tremors
  - Myalgias & arthralgias
  - Rhinorrhea
  - Lacrimation
  - Anxiety & restlessness

- Physical findings
  - Mydriasis
  - Yawning
  - Hyperactive bowel sounds
  - Piloerection
  - Tachycardia
  - Hypertension or hypotension
  - Tachypnea

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Opioid Withdrawal

- Treatment
  - Naturally occurring withdrawal
    - Either opioid or non-opioid adjunctive medication
    - Methadone 10 mg IM or 20 mg PO
      - usually sufficient to relieve symptoms of withdrawal without producing intoxication
    - Clonidine (Catapress)
      - 0.1-0.3 mg PO every hour
    - Benzodiazepines
    - Antiemetics
    - Antidiarrheals

- Iatrogenic withdrawal (from an opioid antagonist)
  - only adjunctive medications should be used
  - not opioids

9. “Iatrogenic syndrome of behaviors developing as a result of inadequate pain control” describes which of the following:
   A. Tolerance
   B. Physical Dependence
   C. Addiction
   D. Pseudo-addiction
   E. Litigation

Opioid-Associated States

- Tolerance
- Physical dependence
- Addiction
- Pseudo-addiction

Tolerance

- Continued exposure to a drug induces changes that result in a decrease in drug effects over time
**Physical Dependence**

- State of adaptation manifested by drug class specific withdrawal syndrome
- Precipitated by
  - Abrupt cessation
  - Dose reduction
  - Decreased blood level
  - Administration of antagonist

**Addiction**

- Primary, chronic, neurobiologic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations
- Characterized by one or more of following behaviors
  - Compulsive use
  - Continued use despite harm
  - Craving

**Pseudo-Addiction**

- Iatrogenic syndrome of behaviors developing as a result of inadequate pain control
- Stages
  - Inadequate Rx to meet pain needs
  - Escalation of analgesic demands by patient
    - behavioral changes to convince others of pain severity
  - Crisis of mistrust between patient & health care team

**Aberrant Drug-Related Behaviors**

**Aberrant Drug-Related Behaviors – Addiction**

- Rx forgery
- Concurrent use of illicit drugs
- Recurrent Rx losses
- Selling Rx drugs
- Stealing or borrowing drugs
- Getting meds from non-medical sources
- Frequent unsanctioned dose escalations

**Aberrant Drug-Related Behaviors** *(Addiction Less Likely)*

- Drug hoarding
- Aggressive complaining about need for higher doses
- Unapproved use to treat other symptoms
- Requesting specific drugs
- Acquisition of meds from medical sources
- Infrequent dose escalations

10. Which of the following statements are true:

A. Narcotic contracts have been proven to dramatically decrease the incidence of addiction
B. Narcotic contracts are required for all chronic opioid receiving patients by the Federation of State Medical Boards
C. Narcotic contracts typically mandate regularly scheduled drug testing
D. Synthetic and semi-synthetic opioids like oxycodone, fentanyl and methadone are always detected in urine drug testing
E. Opioid use should generally be continued if there is evidence of effective pain relief and improved ADLs
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Narcotic Contracts

- Contracts or formal agreements
  - Frequently recommended by experts in chronic pain management
  - Discussed extensively in related literature
  - Used by many physicians
- No studies have demonstrated a reduction in the incidence of addiction or abuse when contracts are used

Narcotic Contracts

- Physicians should be familiar with the legal requirement of their own states
- Federation of State Medical Boards Model Policy on the Use of Controlled Substances for Pain
  - Physician should consider a written agreement for patients
    - at high risk for medication abuse
    - with a history of substance abuse (C level recommendation)

Narcotic Contracts

- Potential negative consequences
  - Damage the patient-physician relationship
  - Erode the patient's sense of trust and reliance on the physician's beneficence
  - Provide a false sense of security for both the patient and the physician about the risk of addiction

Narcotic Contracts

- Avoid improper use of controlled substances
  - Over-dosing
  - Seeking medication elsewhere
  - Selling medication
  - Stopping medication abruptly
- Submit to random drug screens

Urine Drug Testing

- Immunoassay testing of antibodies is usually the first urine drug test done because it is quick and may be used to test for multiple drugs at once
- Immunoassay testing is not always accurate for detecting all drugs and there is sometimes cross reactivity with others
Urine Drug Testing

- Morphine and codeine usually are detected accurately
- Synthetic and semi-synthetic opioids like oxycodone, fentanyl and methadone are not always detected

Urine Drug Testing

- Cocaine testing has a low degree of cross reactivity and is generally a true positive
- A negative test for benzodiazepines may not be accurate because it sometimes does not detect recent use
- Tests for amphetamine/methamphetamine have a high degree of cross reactivity to other sympathomimetics like ephedrine or pseudoephedrine

Continue Opioid Therapy

- If there is
  - Effective pain relief
  - Improvement in ADLs and psychosocial functioning
  - Management or countering of side effects
- Reassessment using the "Four A's of pain" model should be ongoing to
  - Guide optimal pain management
  - Decide if continuation, modification, or discontinuation is needed

Opioid Exit Strategy

- Upon initiating opioid therapy, agree with patient on criteria for failure of the trial
- Common failure criteria include:
  - Lack of significant pain reduction
  - Lack of improvement in function
  - Persistent side effects
  - Persistent noncompliance
- Document method for tapering off opioids if trial is not successful

When to Refer

- History of abuse or drug-related offenses
- Failure to improve with multiple trials of medications
- Selected patients who could benefit from invasive therapy, i.e., steroid epidural injection
- Refer to either PMR for medical management or anesthesia services for injections
- Consider PT consult in all patients
- Consider psychological evaluation in all patients

Summary

- Chronic pain management is a major health care issue/challenge
- Successful management requires provider knowledge, and both interpersonal and organizational skills
### Summary

- Opioids are an essential tool in the overall treatment and management of chronic pain.
- Appropriate use of opioids depends upon differentiating among dependence, tolerance, and addiction, and identifying aberrant drug-taking behaviors.

### Answers

1. B  
2. A  
3. E  
4. C  
5. C  
6. E  
7. B  
8. B  
9. D  
10. E