Disclosures

• There are no disclosures.

Objectives

• Emphasize the concept of risky drugs not risky patients with CNMP.
• Define acute and chronic pain in relationship to chronic disease management.
• Discuss behavioral effects of opioids in patients with CNMP.
• Discuss how behavioral health and primary care medicine can work together in caring for patients with CNMP.
CNMP Management in Primary Care

CNMP Management in Primary Care With Behavioral Health

Response to CNMP and the Opioid Crisis

“Balanced Approach”

Institute for Healthcare Improvement (IHI)

Key Strategies

- **The Opioid Naïve Patient** – Avoid starting, thus preventing opportunities for opioid use and abuse
- **High-Dose Chronic Use** – Compassionately taper opioids and move to alternative pain management
- **Opioid Dependent, Seeking Within Health Care** – Address opioid-seeking behavior without moving patients to illegal means of obtaining opioids.
- **Opioid Dependent, Seeking Outside of Health Care** – Address addiction behaviors and outcomes of opioid-seeking individuals.


Department of Health and Human Services

**Opioid Abuse in the US and HHS Actions to Address Opioid-Related Overdoses and Deaths – (3/26/15)**

- Initiative targeted three priority areas to combat opioid abuse:
  1. **Opioid Prescribing Practices** to reduce opioid use disorders and overdose
  2. Expanded use and distribution of **Naloxone**
  3. Expansion of **Medication-assisted Treatment (MAT)** to reduce opioid use disorders and overdose


Case

- **Average Joe (AJ) is a 44 year old with a few questions...**
  - 100 million people in the US with CNMP
  - 1 in 5 office visits

  Why don't you just give patients opioids and make their pain better?
Opioids for CNMP...

• An ethical argument to treat pain developed over...
  ➢ Centuries - historically, the medical profession had at it’s core the doctrine of the relief of pain and suffering.
  ➢ 1970’s to 1980’s - in the hospice and palliative care community,
  ➢ 1980’s to 1990’s - extended from end of life care to all cancer pain,
  ➢ 1990’s - extended for treatment of acute pain,
  ➢ 1990’s to 2000’s - extended to chronic, non-cancer pain.


Opioid Availability in the Community

• Prescribing of opioids has changed - 2013 Medicare Part D claims for Schedule II Opioid Prescriptions = 58,516,854 claims
  • Family Med (27.1%),
  • Internal Med (22.6%),
  • NP’s (7.2%), PA’s (5.5%),
  • Orthopedists (4.6%)
  • NOT “pill mills”

• 55% illicit use is from friend or relative for free


Opioids for CNMP...

– Evidence does not support long-term use of opioids for CNMP
  • Short-term (<16 weeks) → 30% reduction
  • Long-term → No improvement

– No proven relationship between pain relief and improved function.
  • Strong opioids may improve pain relief but weak opioids or non-opioids improved function and not pain.

Good evidence that 60% of the opioid-related fatalities occur from opioids prescribed within 2012 guidelines. The other 40% occur within 10% of drug abusers.

Risky Drugs

Overdose risk -
- Doubles at doses between 20 and 49 mg/day MED
- Increases nine-fold at doses of 100 mg/day MED or more

True incidence of Opioid Use Disorder is unknown, but at least 10 times prediction
- 1 week supply or ≥ 2 Rx after an acute back sprain => Doubles risk for long-term disability
- Use of opioids for >90 days => 60% more likely to still be on chronic opioids in 5 years

Case

• Average Joe (AJ) is a 44 year old with acute pain...

What is my risk of having chronic, non-malignant pain after an acute pain event?

Definitions of Acute and Chronic Pain

• “Acute Pain” –
  – “the normal, predicted physiological response to an adverse chemical, thermal or mechanical stimulus...associated with surgery, trauma, and acute illness.”

• “Chronic Pain” –
  – “defined as pain lasting longer than 3 months or past the normal time for tissue healing.”

Predictive factors for transition from acute to chronic pain

• Demographic Factors - level of education, female sex, older age, poor health status

• Acute Pain Characteristics - acute pain intensity, duration, cumulative trauma exposure (Low back pain), severe pain intensity

• Psychological Factors - high baseline fear, anxiety, negative beliefs on chronic pain severity, depression

• Contextual Details - early use of prescription opioids (acute low back pain), injured at work, disability, litigation
### Acute to Chronic Pain Transformation

<table>
<thead>
<tr>
<th>Acute Pain Type</th>
<th>% that become Chronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Musculoskeletal Pain</td>
<td>20-30%</td>
</tr>
<tr>
<td>Whiplash-Associated Disorders</td>
<td>30-40%</td>
</tr>
<tr>
<td>Medical and Surgical ICU</td>
<td>27%</td>
</tr>
<tr>
<td>Amputees with Phantom Limb Pain</td>
<td>30-81%</td>
</tr>
<tr>
<td>Post-Thoracotomy Pain Syndrome</td>
<td>50%</td>
</tr>
<tr>
<td>Inguinal Hernia Surgery</td>
<td>0-37%</td>
</tr>
<tr>
<td>Breast Surgery</td>
<td>11-57%</td>
</tr>
<tr>
<td>Phantom Breast Pain</td>
<td>13-24%</td>
</tr>
<tr>
<td>Arm/Shoulder Pain</td>
<td>12-51%</td>
</tr>
<tr>
<td>Acute Herpes Zoster</td>
<td>20-25%</td>
</tr>
</tbody>
</table>


### Theories about Acute to Chronic Pain Development

- **Disease**
- **Life Story**
- **Behavioral**


### Perspectives on Acute to Chronic Pain

<table>
<thead>
<tr>
<th>Disease</th>
<th>Dimensional</th>
<th>Behavioral</th>
<th>Life Story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinction</td>
<td>What the patient has</td>
<td>Who the patient is</td>
<td>What the patient does</td>
</tr>
<tr>
<td>Logic</td>
<td>Categorical</td>
<td>Quantitative</td>
<td>Goal and Purpose</td>
</tr>
<tr>
<td>Treatable Risk Factors for Chronic Pain</td>
<td>Neurpathic Pain</td>
<td>Inflammation</td>
<td>MD</td>
</tr>
<tr>
<td>Treatments</td>
<td>Antidepressants</td>
<td>Anticonvulsants</td>
<td>Relaxation Training</td>
</tr>
</tbody>
</table>

Example of Central Sensitization

Fear-Avoidance Model of Pain


Inflammation-Depression Model


Chronification of Pain and Emotion

Case

• Average Joe (AJ) is a 44 year old with chronic, non-malignant pain...

How do you treat my chronic, non-malignant pain?
Patient Experience with CNMP

According to research:

- 50% of CNMP patients will change doctors due to perceived:
  - Knowledge
  - Attitude

- 25% change physicians > 3x.


Patient Experience with CNMP

Satisfaction ≠ reduction of pain/narcotic prescription

Satisfaction =

- Full explanation of the patient’s condition
- Perceived merits of treatment recommendations
- The better patients thought the pain problem was explained, the more they agreed with the treatment recommendations.

Appropriate treatment of CNMP:

- Involves a caring patient-provider relationship,
- Communication of realistic treatment goals, and
- Patients having trust and confidence in their providers.


Practical Model for Addressing the Relationship Between Acute and Chronic Pain

Chronic Disease Management –

“organized, proactive, multi-component, patient-centered approach to health care delivery that involves all members of a defined population who have a specific disease entity.”

Components of Chronic Disease Management

- Registry/Monitoring/IT
- Prevention
- Screening
- Specialty Referral
- Multi-Dimensional Treatment
- Referrals PT/OT/OMT
- Treat Complications
- Patient/PCP Engagement
- Self Management Goal Setting
- Group Visits
- Evaluation/Reevaluation
- Team Approach

Chronic Pain Management

World Health Organization analgesic ladder

- Increasing pain
- Codeine
- Oxycodone
- Fentanyl
- Hydromorphone
- Methadone
- Morphine
- Oxycodone
- Acetaminophen
- Acetylsalicylic acid (ASA)
- Nonsteroidal anti-inflammatory drugs (NSAIDs)

Example of a uni-dimensional chronic, non-malignant pain approach.

Case

- Average Joe (AJ) is a 44 year old with chronic, non-malignant pain...

Really...what's the harm with me getting a narcotic for my pain?
Chronic Pain Treatment Over Time

Who continues opioids after 90 days of treatment?

**”Adverse Selection”**

- The likelihood of a patient receiving an opioid regimen increases as the associated risks increase.

  - Likelihood of Long-Term Opioids increases ...
    - 3-4x - History of depression or other common mental health disorders.
    - 4-5x - History of alcoholism or non-opioid drug abuse.
    - 5-10x - History of opioid abuse or dependence

Adverse Selection

Opioid Induced Hyperalgesia

Opioid Induced Hyperalgesia – continued use of opioid causes increased sensitivity to painful stimuli.

Noted in literature in the 1800’s –

Rossback in 1880 –

“when dependence on opioids finally becomes an illness of itself, opposite effects like restlessness, sleep disturbance, hyperesthesia, neuralgia, and irritability become manifest.”

Adverse Selection


Opiate Induced Hyperalgesia

Opiate Induced Hyperalgesia

Analgesic Response over Time...

↑ Dosing from Tolerance
& ↑ Pain Sensitivity

Opiate Induced Hyperkatifeia

Definition:

• Increased intensity of the constellation of negative emotional/motivational symptoms and signs observed during withdrawal from drugs of abuse.

• Opiate misuse in the context of pain management produces a hypersensitivity to emotional distress.

• If the Opioid produces a...
  – Break from homeostasis → Hyperkatifeia → Addiction?
  – Restoration of homeostasis → Effective Pain Management

Schematic for Opioid Induced Hyperkatifeia

Pathological Emotional State

- Anxiety, Affective disorders

Effective Pain Treatment

Withdrawal, Dysphoria, Negative Emotional States

Opioid Medications

Hyperkatifeia

- Opioid Abuse & Addiction

Amygdala

PAIN


Opiate Induced Hyperkathifeia
Over time...


Opioids for CNMP...

- Danish Study on Functioning with Chronic Pain and Opioids
  - Opioid usage was associated with
    - not being physically active in leisure time (OR 1.55),
    - not being engaged in employment (OR 0.37),
    - and being on disability (OR 2.68).
  - 90% in the opioid treated pain group reported pain being uncontrolled versus 46% in the non-opioid treated pain group.


Aberrant Drug Taking Behavior

Definition - “Describes dysfunctional activities suggesting misuse”

Continuum of behaviors from mild to severe.
The most predictive are:
- Selling Rx drugs, forgery, stealing drugs
- Injecting oral drugs, use of illicit drugs,
- Rx losses, multiple unsanctioned escalations
- Requesting specific drugs, use of drugs for other symptoms
- Hoarding of medication and frequent calls to the prescribing provider’s office
The CNMP/Addiction Conundrum

- Meta analysis reveals wide variance in reported addiction rates in pain patients.
  - 2.7-50% depending on criteria for aberrancy
- Patients with addictive disease frequently report severe chronic pain
  - 37% in methadone maintenance
  - 24% receiving inpatient treatment
- Users of regularly prescribed opioids had higher rates of opioid addiction 6-12%, Up to 40% misuse or abuse regularly

Spectrum of Patient Behaviors with Long-term Opioid Therapy

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No or few aberrant behaviors</td>
<td>Moderate aberrant behaviors</td>
<td>Egregious behavior or multiple aberrant behaviors</td>
</tr>
<tr>
<td>Appropriate use</td>
<td>Inappropriate use</td>
<td>Inappropriate use</td>
</tr>
<tr>
<td>Quality of Life ↑</td>
<td>Quality of Life ↑ or ↓</td>
<td>Quality of Life ↓</td>
</tr>
<tr>
<td>Function ↑</td>
<td>Function ↑ or ↓</td>
<td>Function ↓</td>
</tr>
</tbody>
</table>


Case

- Average Joe (AJ) is a 44 year old with chronic, non-malignant pain...

  Doctor, how do you treat my chronic, non-malignant pain?
Evidence-Based Treatment for CNMP

- Exercise Therapy
- Cognitive Behavior Therapy
- Mindfulness-Based Stress Reduction
- Medications –
  - Anticonvulsants
  - Antidepressants
  - Pregabalin/Gabapentin
  - Non-steroidal Inflammatory Drugs


Stages of Change Model with CNMP

Distribution of Chronic Pain Patients:
- Pre-contemplation: 30%
- Preparation: 19%
- Action: 30%
- Maintenance: 21%


“Patients in lower stages perceive their chronic pain as purely a medical problem, mainly dependent on health care utilization”
The prevention of chronic pain should be viewed the same as the prevention of other chronic diseases such as diabetes, cancer, stroke, and CAD.

### Primary Prevention of Chronic Pain

<table>
<thead>
<tr>
<th>Primary Prevention</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury prevention</td>
<td>Seatbelt use, airbags, helmets, etc</td>
</tr>
<tr>
<td>Vaccinations</td>
<td>Zoster</td>
</tr>
<tr>
<td>Avoid tobacco, drug &amp; alcohol abuse</td>
<td>Educate re: “low-risk” use</td>
</tr>
<tr>
<td>Healthy Lifestyle</td>
<td>Exercise, stress reduction, weight control</td>
</tr>
<tr>
<td>Mental health care &amp; treatment</td>
<td></td>
</tr>
<tr>
<td>Pre-emptive analgesia for surgeries</td>
<td>gabapentin</td>
</tr>
</tbody>
</table>

### Secondary Prevention of Chronic Pain

- Keep the patient active and address anxiety about activity
- Identify patient goals and address barriers to success
- Treat Mental Health disorders
- Treat Substance Use disorder
- Surgical techniques:
  - Laparoscopic; nerve-sparing
  - Anesthetic (multi-modal; epidural)
- Avoid opioids except:
  - Post-surgery; severe pain (>7), or when other alternative tx ineffective

**Chronic, Non-Malignant Pain Management Protocol**

**Assess**
- Establish diagnosis
- Treatment Eligibility
- Treat Local Pain Generators
- Comorbid Psychiatric Illness
- Adjuvant Pain Medications

**Treat**
- Pain Control & Functioning
- Adherence Monitoring
- Sleep
- Opioid Medications
- Non-pharmacologic modalities
- Adjuvant Pain Medications

**Re-Assess**
- Pain Control & Functioning
- Adherence Monitoring
- Sleep
- Comorbid Psychiatric Illness
- Adjuvant Pain Medications

**Adjust Treatment Protocol**
- Re-Assess
  - Pain Control & Functioning
  - Adherence Monitoring
  - Sleep
  - Comorbid Psychiatric Illness
  - Adjuvant Pain Medications

**Discontinue Treatment**
- Persistent or New Pain
- Abuse, Misuse
- Adverse Effects
- Aberrant Behavior

**Re-Assess**
- Pain Control & Functioning
- Adherence Monitoring
- Sleep
- Comorbid Psychiatric Illness
- Adjuvant Pain Medications

**Adjust Treatment Protocol**
- Add (or Adjust) Opioid Therapy
- Discontinuation Protocol

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**Chronic Pain Treatment Overview**

- Establish Treatment Goals
- Identify and Treat Local Pain Generators
- Promote Healthy Behaviors
- Restore Sleep
- Start Adjuvant Pain Medications
- Treat Comorbid Psychiatric Conditions

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**Opioids for CNMP**

- Use opioids only if there is sustained clinically meaningful improvement in function and no ADR’s or contraindications.

- Before prescribing opioids...
  - review risks and benefits including overdose and addiction (one question screen)
  - consider how opioids will be discontinued
  - obtain a urine drug screen, review the state prescription drug monitoring program, and sign controlled substance agreement.

- Before titrating opioids...
  - carefully assess evidence before titrating to 50 mg/day MED or greater.
  - avoid increasing dosage to 90 mg/day MED or greater and carefully justify doses to 90 mg/day MED or greater.
Opioids for CNMP Cont...

• Perform harm reduction/risk mitigation with adherence monitoring (education, UDS, pill counts) and use of naloxone for patients with certain risks.
• Consider prescribing take-home naloxone if the patient has one or more of the following:
  • Higher opioid dosage (≥ 50 MED)
  • Mental health disorder per DSM 5
  • Family or personal history of substance use disorder or overdose
  • Medical condition that could increase sensitivity to opioid-related side effects.
  • Current use of benzodiazepines
  • Tobacco use

Summary

• Behavioral health and primary care need to work together to care for our patients suffering with CNMP and addiction.
• Emphasis should be on the concept of opioids as risky drugs rather than the idea of risky patients.
• Recognize the behavioral and emotional aspects with pain and opioid treatment to assist patients in being a partner in their healing.
• Think of acute/pre-chronic pain and CNMP in context of chronic disease management with emphasis on prevention and multi-dimensional treatment.
• Only use opioids for CNMP if there is clinically meaningful improvement and no other complications.

Questions