PRACTICAL STRATEGIES FOR MANAGING CHRONIC PAIN: A CME Initiative for Primary Care Physicians

Presented by

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Miami, Florida

Pri-Med Updates – Atlanta, Georgia
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Pri-Med Educational Partner: CME Scholar
Session 6: Practical Strategies for Managing Chronic Pain:  
A CME Initiative for Primary Care Physicians

Learning Objectives

- Identify 4 “stressors” or triggers of fibromyalgia onset.
- Describe 3 nonpharmacologic interventions for effective management of neuropathic pain.

Faculty

Zorba Paster, MD  
Clinical Professor, Department of Family Medicine  
University of Wisconsin School of Medicine and Public Health  
Madison, Wisconsin

Zorba Paster, MD, is a clinical professor in the Department of Family Medicine at the University of Wisconsin-Madison. He also maintains a full-time, clinical practice in Oregon, Wisconsin. In addition to being an active clinical researcher, Dr Paster is a member of the Human Ethics Committee for St. Mary’s Hospital Medical Center and chairs the Human Ethics Committee for Dean Medical Center. Dr Paster is past president of the Wisconsin Academy of Family Physicians.

Following his well-received appearances on radio as a guest expert on Wisconsin Public Radio’s statewide newsmagazine, Morning People, Dr Paster currently co-hosts a weekly WPR national talk show, Zorba Paster on Your Health.

Previous publications include a popular monthly feature of Your Health Magazine, “The Doctor’s In,” based on the radio series. Since 2000, he has been editor of TopHealth, an employee newsletter that reaches more than 1 million readers monthly. His book, The Longevity Code: Your Personal Prescription for a Longer, Sweeter Life, was published in February 2001. He has also been featured in Canada’s Flare magazine, the United Services Automobile Association’s USAA Magazine and Publishers’ Weekly, as well as in regional publications such as Madison Magazine, the Milwaukee Journal, State Journal-Register and San Antonio Express-News.

Penny Tenzer MD, FAAFP  
Associate Professor of Clinical Family Medicine  
Vice Chair, Primary Care and Specialty Practices  
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University of Miami Miller School of Medicine,  
Miami, Florida

Penny Tenzer, MD, is the associate professor of clinical family medicine, the vice chair of the Department of Family Medicine & Community Health at the University of Miami Miller School of Medicine and the Chief of Service for Family Medicine at the University of Miami Hospital.

Dr Tenzer is a Diplomat of the American Board of Family Physicians and a Fellow of the American Academy of Family Physicians. She holds a Certificate of Added Qualifications in Geriatrics. Dr Tenzer lectures regularly at the national level on a variety of topics including ADHD, dyslipidemia, geriatrics, pain management, RLS, diabetes and women’s health issues. In 1993, Dr Tenzer was awarded the AAFP Exemplary Teaching Award, recognizing full-time AAFP members who have teaching skills and have implemented outstanding programs or developed innovative teaching models.

As director of the Jackson Memorial Hospital Family Medicine Residency Program, Dr Tenzer achieved the first full accreditation status for the department in 4 years, developed new academic curriculum for geriatrics, practice management and obstetrics, and acquired funding for an Advanced Life Support in Obstetrics training program for residents.

Faculty Financial Disclosure Statements

The presenting faculty has reported the following:

Dr Paster is a speaker for Endo Pharmaceuticals, Pricara, Pfizer Inc, and Takeda Pharmaceuticals North America, Inc.  
Dr Tenzer is a speaker for Abbott Laboratories and Boehringer Ingelheim Pharmaceuticals, Inc.

Education Partner Financial Disclosure Statements

The content collaborators at CME Scholar have provided financial disclosure and have no conflicts of interest to resolve for each of the sessions related to this activity.
### Drug List

<table>
<thead>
<tr>
<th>Generic</th>
<th>Trade</th>
<th>Generic</th>
<th>Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>amitriptyline</td>
<td>Elavil</td>
<td>morphine CR/SR</td>
<td>Kadian (CR), MS Contin (SR)</td>
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<tr>
<td>carbamazepine</td>
<td>Tegretol</td>
<td>nortriptyline</td>
<td>Oramorph (SR)</td>
</tr>
<tr>
<td>desipramine</td>
<td>Norpramin, Pertofrane</td>
<td>oxycodone CR</td>
<td>Aventyl, Pamelor</td>
</tr>
<tr>
<td>duloxetine HCl</td>
<td>Cymbalta</td>
<td>pregabalin</td>
<td>OxyContin</td>
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<tr>
<td>fentanyl patch</td>
<td>Duragesic</td>
<td>tramadol</td>
<td>Lyrica</td>
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<tr>
<td>gabapentin</td>
<td>Neurontin</td>
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<td>Ultram</td>
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### Acronym List

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>controlled release</td>
<td>SOAPP</td>
<td>Screener &amp; Opioid Assessment for Patients in Pain</td>
</tr>
<tr>
<td>DPN</td>
<td>diabetic peripheral neuropathy</td>
<td>SSRI</td>
<td>selective serotonin reuptake inhibitor</td>
</tr>
<tr>
<td>EP</td>
<td>education partner</td>
<td>SSNRI</td>
<td>selective serotonin/norepinephrine reuptake inhibitor</td>
</tr>
<tr>
<td>FMS</td>
<td>fibromyalgia syndrome</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOA</td>
<td>mechanism of action</td>
<td>TCA</td>
<td>tricyclic antidepressant</td>
</tr>
<tr>
<td>PHN</td>
<td>postherpetic neuralgia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Suggested Reading List


Session 6: 3:30 PM – 5:30 PM

Practical Strategies for Managing Chronic Pain: A CME Initiative for Primary Care Physicians

Speakers:
Zorba Paster, MD
Penny Tenzer MD, FAAFP

Practical Strategies for Managing Chronic Pain
A CME Initiative for Primary Care Physicians

Educational Objectives
- Review steps in the initial evaluation of a patient with chronic pain, including screening for common comorbidities such as depression and sleep disorders
- Identify support tools available to the primary care clinician managing a patient with chronic pain
- Outline the clinical benefits and risks of using opioid agents long-term (>6 months) in patients with chronic pain
- Describe initial management and follow-up care for a patient with fibromyalgia
- Discuss pharmacologic and nonpharmacologic options commonly used in effective management of neuropathic pain

ARSPRE-Questions

Presenter Disclosure Information
The following relationships exist related to this presentation:
- Dr Paster is a speaker for Endo Pharmaceuticals, Pfizer Inc, PriCara and Takeda Pharmaceuticals.
- Dr Tenzer is a speaker for Abbott Laboratories and Boehringer-Ingelheim Pharmaceuticals, Inc.

Off Label/Investigational Discussion
In accordance with Pri-Med Institute policy, faculty have been asked to disclose discussion of unlabeled or unapproved use(s) of drugs or devices during the course of their presentations.
In your practice, what do you consider the most challenging aspect of treating patients with chronic pain?

1. Use of pain assessment/screening tools
2. Accurate diagnosis of pain syndrome
3. Identifying optimal therapy/switching
4. Managing adverse events/polypharmacy
5. Poor tolerability/patient compliance
6. None of the above

How often do you utilize a pain measurement tool when assessing chronic pain patients?

1. Always
2. Often
3. Rarely
4. Never

When considering starting an opioid for chronic pain patients, how often do you screen for potential opioid abuse or addiction risk?

1. Always
2. Often
3. Rarely
4. Never

Which aspect of fibromyalgia do you consider most challenging?

1. Accurate diagnosis
2. Long-term pain management
3. Nonpharmacologic management
4. None of the above
5. I do not treat fibromyalgia patients

Which aspect of neuropathic pain do you consider most challenging?

1. Accurate diagnosis
2. Long-term pain management
3. Nonpharmacologic management
4. None of the above
5. I do not treat neuropathic pain patients

Overview of Chronic Pain
Chronic Pain Overview

- International Association for the Study of Pain (IASP) pain definition: “an unpleasant sensory and emotional experience associated with actual or potential tissue damage”
- 50-75 million people in the United States experience chronic pain that interferes with activities of daily living and quality of life
- Combined expenses of health care, lost compensation, and litigation associated with chronic pain costs the U.S. public approximately $100 billion annually
- Chronic back pain alone affects more than 70% of all Americans at some time in their lives
- The most common reason for unrelied pain is the failure to routinely assess and effectively manage pain

50-75 million people in the United States experience chronic pain that interferes with activities of daily living and quality of life

Consequences of Chronic Pain

<table>
<thead>
<tr>
<th>Physical Functioning</th>
<th>Mood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreased mobility</td>
<td>Depression</td>
</tr>
<tr>
<td>Sleep disturbances</td>
<td>Anxiety</td>
</tr>
<tr>
<td>Fatigue</td>
<td>Anger</td>
</tr>
<tr>
<td>Loss of appetite</td>
<td>Irritability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diminished social relationships (family/friends)</td>
</tr>
<tr>
<td>Decreased sexual function/intimacy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Societal Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased healthcare utilization</td>
</tr>
<tr>
<td>Disability</td>
</tr>
<tr>
<td>Loss of workdays or employment</td>
</tr>
<tr>
<td>Substance abuse</td>
</tr>
</tbody>
</table>

Acute vs Chronic Pain

- Acute pain is generally short-lived, lasting less than 6 months. It responds to intervention and/or healing
- Chronic noncancer pain lasts 6 months or longer and may be experienced by the patient as continuous pain or intermittent and recurrent pain events. It serves no useful biologic purpose

10-Step Approach to Long-term Chronic Pain Management

1. Comprehensive initial evaluation
   - History
   - Pain, medical, psychosocial
   - Assessment
   - Physical, functional, psychosocial

Approach to Long-term Chronic Pain Management

- Ensure accurate and timely documentation and record keeping

Nociceptive vs Neuropathic Pain

- Nociceptive
  - Arthritis
  - Neuralgia
  - Mismatched modality
  - Post-operative pain
  - Disc/nerve compression
  - Sports/Exercise injury

- Neuropathic
  - Neuropathic radicular pain
  - Neuralgic regional pain (low back pain)
  - Nociceptive pain
  - Psychogenic pain
  - Nociceptive radicular pain

**History**

PQRST Mnemonic
- Assess Prognostic (aggravating) and Palliative (relieving) factors
- Assess the Quality of the pain: burning, stabbing, stinging, dull, sharp, throbbing, shooting, aching, tingling, heaviness, tightness
- Assess the Region (location) of the pain
- Assess the Severity of the pain (use pain intensity scale)
- Assess the Timing of the pain (when does it occur, how long does it persist), Treatment

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**Unidimensional Pain Assessment Tools**

- Visual Analog Scale
  - No pain
  - 1
  - 2
  - 3
  - 4
  - 5
  - Worst possible pain

- Wong-Baker Faces Scale
  - No pain
  - 0
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10
  - Worst possible pain

- Verbal Pain Intensity Scale
  - No pain
  - Mild pain
  - Moderate pain
  - Severe pain
  - Very severe pain
  - Worst possible pain

- Numeric Pain Intensity Scale
  - 0
  - 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
  - 9
  - 10
  - Worst possible pain

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**Physical Examination**

- A comprehensive physical and neurological examination should be performed when evaluating and identifying the patient's subjective complaints of pain
- Should serve to verify the preliminary impression from the history and guide the selection of laboratory and imaging studies

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**Clinical Assessment of Pain**

- **Functional Assessment**
  - Does the pain interfere with activities: sleeping, eating, walking, rising/sitting, hygiene, sex, relationships?

- **Psychological Assessment**
  - Does the patient have concomitant depression, anxiety, or mental status changes?

- **Medication History**
  - What medications have been tried in the past?
  - Which medications have helped?
  - Which have not helped?

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**Multidimensional Pain Assessment Tools**

- Measure pain intensity and impact on function, mood, and/or quality of life

- **Examples**
  - Brief Pain Inventory
  - Wisconsin Brief Pain Questionnaire
  - McGill Pain Questionnaire
  - Memorial Pain Questionnaire Card

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**Approach to Long-term Chronic Pain Management**

- Establish diagnosis
  - X-rays, MRI, CT, neurophysiologic studies
  - Psychological evaluation
  - Precision diagnostic interventions

*Ensure accurate and timely documentation and record keeping

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**References**

Diagnostics

There is no single diagnostic test for pain—either to confirm or exclude underlying causes such as rheumatoid arthritis, diabetic neuropathy, spinal disorders, HIV, herpes viruses, etc.

Diagnostics (cont'd)

Diagnostics such as plain radiology films with flexion and extension may be helpful.
- Magnetic resonance imaging (MRI) — best for most screening
- Computed tomography (CT) — if bony pathology is suspected
- CT myelogram — patients with previous surgery
- Nerve conduction velocity and electromyography

Psychological Evaluation

Investigate psychiatric contributions to pain, including:
- Sleep disorders
- Depression
- Anxiety
- Personality disorders
- History of substance abuse/dependence

Approach to Long-term Chronic Pain Management (cont'd)

3. Establish medical necessity* - Physical diagnosis, Therapeutic/Interventional pain management, Physical modalities, Behavior therapy

4. Assess risk/benefit ratio* - Treatment is beneficial

5. Establish treatment goals* - Pain relief (may not be complete), Improved physical and psychological function, Identify additional diagnostic tests, consultations, and/or treatments, if planned

Goals of Effective Management

"In persistent non-cancer pain, the goal of restoring physical or psychological function is often given equal importance to the goal of pain control"  

It should be made clear to patients and families that the total absence of any discomfort is not always achievable


Principles of Pain Management

- Individualize pain management
- Assess and treat disability and physical, psychosocial, and psychological comorbidities\(^1,2\)
- Select simplest approach using multimodal therapy (pharmacologic and nonpharmacologic)\(^1,2\)


Approach to Long-term Chronic Pain Management (cont’d)

6. Obtain informed consent and agreement* • For opioid therapy


Treatment

- Comprehensive management often includes a combination of nonpharmacologic and pharmacologic therapy
- Nonpharmacologic therapy
  - Biofeedback
  - Physical therapy\(^1,2\)
  - Massage
  - Acupuncture
  - Cognitive behavior therapies and other modalities
  - Physical exercise


Approach to Long-term Chronic Pain Management (cont’d)

7. Initial dose adjustment phase (<4-12 wk)*

8. Stable phase (stable-moderate dose)*

9. Adherence monitoring* • Prescription monitoring programs • Random-dose increase • Pill counts


Nonpharmacologic Therapies for Low-Back Pain*

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Net Benefit</th>
<th>Level of Evidence</th>
<th>Grade</th>
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<tbody>
<tr>
<td>Progressive relaxation</td>
<td>Substantial</td>
<td>Fair</td>
<td>B</td>
</tr>
<tr>
<td>Acupuncture</td>
<td>Moderate</td>
<td>Fair</td>
<td>B</td>
</tr>
<tr>
<td>Cognitive-behavioral therapy</td>
<td>Moderate</td>
<td>Good</td>
<td>B</td>
</tr>
<tr>
<td>Exercise</td>
<td>Moderate</td>
<td>Good</td>
<td>B</td>
</tr>
<tr>
<td>Interdisciplinary rehabilitation</td>
<td>Moderate</td>
<td>Good</td>
<td>B</td>
</tr>
<tr>
<td>Spinal manipulation</td>
<td>Moderate</td>
<td>Good</td>
<td>B</td>
</tr>
<tr>
<td>Brief individualized education</td>
<td>Moderate</td>
<td>Fair</td>
<td>B</td>
</tr>
<tr>
<td>Massage</td>
<td>Moderate</td>
<td>Fair</td>
<td>B</td>
</tr>
<tr>
<td>Yoga</td>
<td>Moderate-Uncertain</td>
<td>Fair-Poor</td>
<td>B</td>
</tr>
<tr>
<td>Back schools</td>
<td>Small</td>
<td>Fair</td>
<td>C</td>
</tr>
</tbody>
</table>

Pharmacologic Treatments for Pain


Breakthrough Pain

- Transient exacerbation of pain occurring in a patient with otherwise stable, persistent pain
  - Incident pain—caused by patient movement
  - Spontaneous pain—unrelated to patient action
  - End-of-dose pain—occurring just prior to the next scheduled dose of analgesic
- Rapid onset (<5 minutes)
- Severe intensity
- Self-limiting, average duration 30 minutes
- Prevalence
  - 20-95% in surveys


Breakthrough Pain: Assessment

- No independently validated tool to assess
  - Location, severity, temporal factors, relationship to baseline persistent pain, relationship to scheduled analgesic(s), precipitants, predictability, inferred pathophysiology
- Reassess etiology of baseline persistent pain
- Reassess around-the-clock coverage of scheduled analgesic(s) for baseline persistent pain


Breakthrough Pain: Management

- Use potent analgesic with rapid onset and short duration of action
- If using immediate-release analgesic(s) for baseline persistent pain → consider sustained-release analgesic(s)
- If using sustained-release analgesic(s)
  - Increase dose
  - Shorten dosing interval
- Non-pharmacologic measures


Approach to Long-term Chronic Pain Management (cont’d)

- Ensure accurate and timely documentation and record keeping

Support Tool


**H.A.M.S.T.E.R. Approach**

- HISTORY
- ASSESSMENT
- MECHANISM of Pain
- SOCIAL and Psychological Factors
- TREATMENT
- EDUCATION
- REASSESSMENT

**Chronic Pain Overview Summary**

- Evaluate/adopt personalized ‘step approach’ to pain assessment/management (e.g., HAMSTER)
- Identify pain tools that work for your practice
- Set realistic, achievable goals in pain reduction
- Comprehensive management should include combination of nonpharmacologic/pharmacologic therapy
- Seek to minimize specialist referrals only for times when absolutely necessary

**Pharmacologic Treatments for Pain**

The selection of analgesic therapy should be made on a case-by-case basis considering:

- Pain characteristics, particularly pain intensity
- Type of pain
- Risks of medicines
- Comorbidities

**Opioids in Chronic Pain**

- Portenoy RK, Kanner RM. Pain Management: Theory and Practice. 1996:4

**Pharmacologic Treatments for Pain (cont’d)**

- Nociceptive
  - Analgesics
  - Narcotic antagonists
  - Nerve-sensitizing agents
  - NSAIDs
  - Local anesthetics
  - Skeletal muscle relaxants
- Neuropathic
  - Antidepressants
  - Anticonvulsants
  - Gabapentinoids
  - Local anesthetics
topical anesthetics
  - Venous anesthetics
  - Other anesthetics
  - Other analgesics

**Support Tool (cont’d)**


American Pain Foundation Pain Notebooks
Opioids: A Balancing Act

Opioids: Pharmacologic Effects

<table>
<thead>
<tr>
<th>Opioid</th>
<th>Mu</th>
<th>Delta</th>
<th>Kappa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine</td>
<td>Partial agonist</td>
<td>Antagonist</td>
<td></td>
</tr>
<tr>
<td>Codeine</td>
<td>Weak agonist</td>
<td>Weak agonist</td>
<td></td>
</tr>
<tr>
<td>Fentanyl</td>
<td>Agonist</td>
<td>Agonist</td>
<td></td>
</tr>
<tr>
<td>Levorphanol</td>
<td>Agonist</td>
<td>Agonist</td>
<td></td>
</tr>
<tr>
<td>Meperidine</td>
<td>Agonist</td>
<td>Agonist</td>
<td></td>
</tr>
<tr>
<td>Methadone</td>
<td>Agonist</td>
<td>Agonist</td>
<td></td>
</tr>
<tr>
<td>Morphine</td>
<td>Agonist</td>
<td>Weak agonist</td>
<td>Antagonist</td>
</tr>
<tr>
<td>Naloxone</td>
<td>Antagonist</td>
<td>Weak antagonist</td>
<td>Antagonist</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>Agonist</td>
<td>Agonist</td>
<td>Agonist</td>
</tr>
</tbody>
</table>

Opioid Efficacy in Chronic Pain Disorders

- Diabetic neuropathy
- Cancer pain
- Noncancer neuropathic pain
- Postherpetic neuralgia
- Phantom limb pain

Case Study: Amy

- 53-year-old female with a 6-year history of low-back pain
- Worked as a shipping clerk until 14 months ago when she went out on total disability
- Previous treatment has involved exercise, acetaminophen, various NSAIDs, and amitriptyline
  - Current: Nabumetone 1500 mg qd and amitriptyline 100 mg qhs
- Pain ranges from 4-6 during day and 2-5 at night (VAS)

How would you modify her treatment?

1. Add pregabalin
2. Add acetaminophen/hydrocodone combination
3. Add oxycodone controlled-release
4. Add morphine controlled-release
5. Add cyclobenzaprine
Efficacy of Long-term Oral Opioids in Noncancer Pain

In a systematic review of clinical evidence (17 studies of 115 met study criteria) for patients treated with opioids for chronic noncancer pain:

- 33% of patients discontinued treatment due to adverse events
- 12% discontinued treatment due to insufficient pain relief
- 0.05% reported signs of opioid addiction in patient
- While limited, evidence suggests oral and intrathecal opioids reduce long-term pain for patients who continue treatment


Strategies to Reduce Opioid Adverse Effects

- Preventative measures
  - Stool softener/laxative, peripheral opioid antagonist
- Slow titration of doses (especially in opioid-naïve patient)
- Verifying that symptoms are caused by opioid (rather than result of disease or disability)
- Consider changing dosing regimen (eg, from prn to around-the-clock, etc) or route of administration or opioid rotation


Managing Opioid Side Effects

<table>
<thead>
<tr>
<th>Side Effect</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constipation</td>
<td>Increase fluid intake, use of cathartics, stool softener, or enemas, and nonopioid analgesics</td>
</tr>
<tr>
<td>Nausea and vomiting</td>
<td>Switch opioid; use antiemetic</td>
</tr>
<tr>
<td>Sedation</td>
<td>Lower dose; add stimulants</td>
</tr>
<tr>
<td>Itching</td>
<td>Switch opioid; antihistamines</td>
</tr>
<tr>
<td>Edema and sweating</td>
<td>Switch opioids</td>
</tr>
<tr>
<td>Dizziness</td>
<td>Antivertiginous agents</td>
</tr>
<tr>
<td>Confusion</td>
<td>Titrated dose; switch opioid; add neuroleptic</td>
</tr>
<tr>
<td>Endocrine dysfunction</td>
<td>Endocrine monitoring; testosterone replacement</td>
</tr>
<tr>
<td>Urinary retention</td>
<td>Switch opioids</td>
</tr>
<tr>
<td>Risk of falling for the elderly</td>
<td>Lower dose; use nonopioid analgesics</td>
</tr>
</tbody>
</table>

When opioid therapy is initiated, what preventative treatment should also be initiated?

1. Antihistamine
2. Antiemetic
3. Laxative, fluids
4. Antacid
5. None of the above

Opioid Rotation

- Should be considered only after increased doses of a previous opioid have failed to relieve pain
- There is incomplete cross-tolerance among opioids, changing from one opioid to another opioid may provide better analgesia
- May be indicated to decrease side effects when they occur; it is not employed to prevent side effects

New Nonmedical Users of Prescription Drugs

**Opioid Tolerance**

- Tolerance and physical dependence should not be confused with psychological dependence or “addiction”
  - Can lead to ineffective prescribing, administering, and dispensing of opioids\(^1\)\(^-\)\(^3\)
  - Contributes to problem of undertreatment\(^1\)\(^-\)\(^3\)
- Tolerance to opioids is defined as the need to increase dose requirements over time to maintain optimal pain relief\(^4\)
- Indication of tolerance is a decrease in the duration of analgesia for a given dose\(^1\)\(^-\)\(^4\)


**Incidence of Denovo Addiction on Opioid Exposure**

- Abuse/addiction occurs in about 3% of chronic pain patients taking opioids\(^1\)
- Risk factors for abuse or addiction in the general population also predict opioid abuse
  - History of early substance use
  - Personal/family history of substance abuse
  - Comorbid psychiatric disorders


**Aberrant Drug-Taking Behaviors (cont’d)**

<table>
<thead>
<tr>
<th>Probably More Predictive of Addiction</th>
<th>Probably Less Predictive of Addiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selling prescription drugs</td>
<td>Drug hoarding during periods of reduced symptoms</td>
</tr>
<tr>
<td>Stealing or “borrowing” drugs</td>
<td>Requesting specific drugs</td>
</tr>
<tr>
<td>Obtaining prescription drugs from nonmedical sources</td>
<td>Unapproved use of the drug to treat another symptom</td>
</tr>
<tr>
<td>Multiple dose escalation or other noncompliance with therapy despite warnings</td>
<td>Reporting psychic effects not intended by the clinician</td>
</tr>
<tr>
<td>Repeatedly seeking prescriptions from other clinicians or from emergency departments without informing prescriber or after warnings to desist</td>
<td>Resistance to a change in therapy associated with “tolerable” adverse effects with expressions of anxiety related to the return of severe symptoms</td>
</tr>
<tr>
<td>Repeated resistance to changes in therapy despite clear evidence of adverse physical or psychological effects from the drug</td>
<td></td>
</tr>
</tbody>
</table>

Approaches to Identifying Patients at Risk of Abusing Opioids

- History
  - Personal history and family history

- Screening instruments
- Behavioral checklists
- Therapeutic maneuver

Screener and Opioid Assessment for Patients in Pain (SOAPP)

- 14-item, self-administered form capturing the primary determinants of aberrant drug-related behavior
- Validated over a 6-month period in 175 chronic pain patients
- Adequate sensitivity and selectivity
- May not be representative of all patient groups
- A score of ≥7 identifies 91% of patients who are high risk

Tool available for downloading at: http://www.painedu.org/soap.asp

Opioid Agreement (cont’d)

- Common elements
  - Regular appointments to review treatment plan
  - Regular refills during normal office hours
  - Consequences of nonadherence described
  - Consent for random urine drug tests or pill counts
  - Patient waiver of privacy to contact other providers
  - Recovery program for substance abusers

Importance of Medical Record Documentation

- Poor medical record documentation is a common cause of problems before licensing boards, and this can be corrected

- Medical record documentation must cover 5 areas
  - History and physical evaluation of the patient
  - Treatment plan
  - Informed consent and agreement for treatment
  - Periodic review
  - Consultations and referrals

Opioid Risk Tool

- Mark each box that applies:
  - Female    Male
  - 1. Family history of substance abuse
  - Alcohol 1          3
  - Illegal drugs 2          3
  - Prescription drugs 4          4
  - 2. Personal history of substance abuse
  - Alcohol 3          3
  - Illegal drugs 4          4
  - Prescription drugs 5          5
  - 3. Age (mark box if between 18-45 years) 1          1
  - 4. History of preadolescent sexual abuse 3          0
  - 5. Psychological disease
  - ADHD, OCD, bipolar, schizophrenia 2          2
  - Depression 1          1

- Scoring totals:
- 0-3: low risk (6%)
- 4-7: moderate risk (28%)
- ≥8: high risk (>90%)

Tool available for downloading at: http://pain-topics.org/opioid_risk.php


Opioid Agreement

- Common elements
  - Goals of therapy: monitor pain, function, side effects
  - Single provider: one physician and pharmacy
  - Informed consent on all opioid risks
  - Definitions of addiction, tolerance, and physical dependence
  - Patient discloses: substance abuse history, all current medications
  - Need for complete, honest self-report

How Do the States Rate Regarding Policies That Affect Pain Treatment?

Abuse-Deterrent Products (Recent or In Development)

<table>
<thead>
<tr>
<th>Agent(s)/Formula</th>
<th>Therapeutic Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine + naloxone</td>
<td>Treat opioid dependence by preventing withdrawal symptoms</td>
</tr>
<tr>
<td>Morphine + sequestered naltrexone</td>
<td>Crushing/dissolving capsule releases naltrexone, significantly reducing euphoric effect of opioid</td>
</tr>
<tr>
<td>Oxycodone + low-dose naltrexone</td>
<td>Opioid efficacy w/minimal physical dependence</td>
</tr>
<tr>
<td>SR oxycodone gel capsule</td>
<td>Sustained-release 12-24 hr form to minimize “drug dumping”</td>
</tr>
<tr>
<td>Secure-release tramadol formulation</td>
<td>Cannot be crushed for inhalation or swallowing to obtain euphoria; extraction of tramadol difficult</td>
</tr>
</tbody>
</table>

Pharmaceutical Approaches to Abuse-Deterrent Products

- Modified release to resist crushing/extraction
- Agonist-antagonist combination to:
  - Increase aversion
  - Decrease tolerance
- Added ingredient to increase aversion
- Nasal gel

Opioid Management - Summary

- Practical, applicable strategies for opioid management exist, readily implemented
- Improved patient screening and monitoring processes available
- Used appropriately and with care, opioids have vital role in chronic pain management
- New and evolving abuse-deterrent opioid products to help increase safety profiles

Prevalence of Fibromyalgia

- Prevalence estimated at 2.0% in the US general population:
  - 3.4% in women
  - 0.5% in men
  - Prevalence increases with age
- In a 2007 survey of 2596 US patients with fibromyalgia:
  - 42.4% diagnosed by a rheumatologist
  - 35.4% diagnosed by family practice or internist
- Second most common disorder seen by US rheumatologists (after OA)
- Yet rheumatologists provide care for <20% of US cases

Fibromyalgia

OA = osteoarthritis.

What Causes Fibromyalgia?

- Genetics
- "Triggers"
- Mechanisms
  - Relationship between physiological and psychological factors
  - Disordered sensory processing
  - Autonomic/neuroendocrine dysfunction


Which of the following would not likely be considered a “trigger” or “stressor” linked to onset of fibromyalgia?

1. Lyme disease
2. Automobile accident
3. Menopause
4. Flood
5. Current medication(s)

Apparent “Stressors” Capable of Triggering Fibromyalgia

- Peripheral pain syndromes
- Infections (eg, parvovirus, EBV, Lyme disease, Q fever; uncommon URI)
- Physical trauma (automobile accidents)
- Psychological stress/distress
- Hormonal alterations (eg, hypothyroidism)
- Drugs
- Vaccines
- Certain catastrophic events (war, but not natural disasters)


Tender Points Problems

- The least objective way to measure tenderness, being highly correlated with psychological factors, especially distress
- Gives inappropriate impression about the nature of the problem in fibromyalgia (ie, in the muscle)
- Accounts for over-representation of distressed, unfit females
- 11 is a totally arbitrary number

Tenderness in the General Population

- Pain and other somatic symptoms occur as a continuum rather than as “yes” or “no”
- In fact, all of the defining features of somatic syndromes, such as FM, IBS, etc., occur as a continuum
- In the absence of a peripheral injury, tenderness throughout the body is highly correlated

Fibromyalgia Syndrome: Clinical Characteristics

- Lower mechanical and thermal pain thresholds (allodynia)
- High pain ratings for noxious stimuli (hyperalgesia)
- Altered temporal summation of painful stimuli (windup)

Structured Interview for Fibromyalgia

A. Generalized, chronic pain (≥3 months) affecting the axial, plus upper and lower segments, plus left and right sides of the body
- Either “B” or “C”
B. At least 11 of 18 reproducible tender points
C. At least 4 of the following symptoms:
  1. Generalized fatigue
  2. Headaches
  3. Sleep disturbance
  4. Neuropsychiatric complaints
  5. Numbness, tingling sensations
  6. Irritable bowel symptoms
D. It cannot be established that the disturbance was due to another systemic condition

Sensory Processing in Fibromyalgia: A Problem With Pain “Volume Control”

- Patients display a normal “detection threshold” to sensory stimuli, but exhibit a decreased “noxious threshold”
- This is not just to pressure, but also other stimuli, eg, heat, noise, electrical stimulation
- This phenomena is independent of psychological factors, such as expectancy or hypervigilance

Stimuli and Responses During Pain Scans

- IPL = inferior parietal lobule; SI = primary somatosensory cortex; SII = secondary somatosensory cortex; STG = superior temporal gyrus

Diagnosis of Fibromyalgia

- American College of Rheumatology criteria for FMS: patient “must have both a history of chronic widespread pain involving all four quadrants of the body (and the axial skeleton), and the presence of 11 of 18 ‘tender points’ on physical examination”
- Chronic widespread musculoskeletal pain for ≥3 months
- Absence of other systemic condition accounting for pain
- Characteristic symptoms:
  - “I hurt all over…”“It feels like I always have the flu”
  - Fatigue, sleep, and mood disturbances
  - IBS, irritable bladder, multiple other somatic complaints
- EARLY DIAGNOSIS IS CRITICAL
Diagnosis and Evaluation of Fibromyalgia

- Initial diagnosis
- Focused history: chronic, widespread pain
- Musculoskeletal and tender point examination
- Selected laboratory testing
  - Symptom activity, severity best measured by self-administered VAS
  - Outcome best evaluated by FIQ and other composite functional scales

Why Do a Tender Point Exam?

- Confirm diagnostic impression
- Proxy for pain sensitivity
- Compare to joint tenderness
- Potential prognostic factor

Medical or Psychiatric?

- Harmful and unproductive argument
- Fruitless quandary to work out what came first
- For all patients, symptoms are real and can be disabling
- Need a dual treatment approach targeting both physical and psychological symptoms

Fibromyalgia and Mood Disturbances

- Overall incidence about 40%-60%
- Increased lifetime and family history of mood disorders
- Most studies from tertiary referral centers

A mood disorder commonly co-exists in ___% of persons with fibromyalgia at time of diagnosis.

1. 10-15
2. 18-32
3. 20-40
4. 69-81
Which of the following comorbidities is/are not commonly associated with fibromyalgia:

1. Depression/anxiety
2. Irritable Bowel Syndrome
3. Anemia
4. Rheumatoid arthritis
5. Insomnia

Chronic low back pain 10-40%
IBS 5-30%
Mood disorders 10-30%
Chronic headaches 30-50%
Fibromyalgia 3-5%

Current Fibromyalgia Care
- 50% of visits are to primary care physicians
- 16% of fibromyalgia visits are to rheumatologists
- Other specialists should include physiatrists, psychiatrists, and pain management experts


Physician Concerns in Fibromyalgia
- Is there validity to the diagnosis of fibromyalgia?
  - ACR studies validate diagnostic classification criteria
  - Face validity—multiple population studies
  - Similar concerns with subjective diagnostic criteria
- Does the diagnostic label promote helplessness and disability?
  - Only 1 controlled study; it didn’t
  - Diagnosis should be reassuring and end doctor shopping
  - Only if diagnosis is coupled with education
  - Causation issue is contentious

Does Fibromyalgia Label Alter Health Status?

*Significant difference vs pre-label.

The Impact of Fibromyalgia Diagnosis on Diagnostic Test Use by Primary Care

Management of Fibromyalgia

- All patients
  - Reassurance regarding diagnosis
  - Give explanation, including, but not limited to, psychological factors
  - Promote return to normal activity, exercise

- Most patients
  - Medication trial (analgesics, antidepressants, anticonvulsants)
  - Cognitive behavior therapy, counseling
  - Physical rehabilitation

Efficacy of Duloxetine in Fibromyalgia

All differences between exercise and control are significant.


Efficacy of Pregabalin on Fibromyalgia Pain

*P < 0.05 vs all pregabalin doses vs placebo except 300 mg/day at week 11.

Jeffery, et al. J Pain 2008;9:S25-57. Data for mean weekly values obtained from the numerical rating scales recorded daily represent an observed-case analysis, not including values from patients who discontinued. Estimates and P values were derived by a repeated measures ANCOVA. End point values are based on an intent-to-treat, last observation carried forward with adjustment based on Hochberg’s procedures.

Efficacy of Tramadol*/Acetaminophen in Fibromyalgia

Both effective in RCTs
Both also improve efficacy of exercise
May be done in single or multiple sessions
Multidisciplinary, team approach effective
Role for pain management center

*Not indicated for fibromyalgia.
Patient and Family Education
- Schedule at least 3-5 fibromyalgia patients together
- Utilize office staff
- Provide a detailed education session
  - Group format, interactive
  - Provide core set of information
  - Pathophysiology best based on biopsychological illness model
  - Recognize the wealth of patient misinformation
  - Open for questions, discussion
  - End with one-on-one advice

Fibromyalgia - Summary
- Fibromyalgia is a common, chronic pain condition that adversely affects function and health-related quality of life
- The ACR criteria are the standard classification criteria for research studies in fibromyalgia
- The presence of characteristic clinical features of fibromyalgia is helpful in identifying patients in the clinic
- While fibromyalgia is not a diagnosis of exclusion, it is important to identify other medical conditions that might present with overlapping symptoms

Estimated Prevalence of Neuropathic Pain in the United States*

<table>
<thead>
<tr>
<th>Disease Process</th>
<th>Number of Cases per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection/inflammation</td>
<td>2,100</td>
</tr>
<tr>
<td>Neurotoxicity</td>
<td>1,200</td>
</tr>
<tr>
<td>Tumor infiltration</td>
<td>200</td>
</tr>
<tr>
<td>Metabolic abnormality</td>
<td>50</td>
</tr>
</tbody>
</table>

Therapeutic Intervention
- Surgery
- Chemotherapy
- Irradiation

Genetic Predisposition
- Inherited neurodegeneration
- Metabolic/endocrine abnormalities

Neuropathic Pain

Common Causes of Neuropathic Pain

Disease Process
- Infection/inflammation
- Neurotoxicity
- Tumor infiltration
- Metabolic abnormality

Therapeutic Intervention
- Surgery
- Chemotherapy
- Irradiation

Genetic Predisposition
- Inherited neurodegeneration
- Metabolic/endocrine abnormalities

Neuropathic Pain


Neuropathic Pain: Mechanisms

- Neuropathic pain mechanism is complex; involves peripheral and central nervous system mechanisms.
- Neuronal hyperexcitability results from alteration of electrolyte concentration gradients and activation/deactivation of neurotransmitters.
  - Influx of Na⁺ and Ca²⁺ into nerve cells
  - Destabilization of excitatory and inhibitory GABA neurotransmitters and neuropeptides

Especially important to consider when selecting combination therapy


Neuropathic Pain: Approach to Treatment

- **Initial diagnosis**
- **Treat underlying condition**
- **Reduce pain**
- **Improve physical function**
- **Reduce anxiety/distress**
- **Improve overall quality of life**


Case Study: Maureen

- 72 yr-old teacher, mother of 2, hght: 5’5”; wght: 184 lbs; BMI: 30.6 kg/m²
- BP: 141/89 mm Hg
- Diagnosed with a number of chronic health problems over the last several years; currently receiving treatment for hypertension, osteoarthritis, and chronic obstructive pulmonary disease (COPD).
- Despite MD advice, has found it difficult to lose weight, quit smoking
- Lungs: clear to percussion, but mild wheezing bilaterally
- For hypertension: lisinopril 10 mg/hydrochlorothiazide 12.5 mg daily
- For osteoarthritis of the knee: naproxen sodium 375 mg twice daily
- For COPD: fluticasone propionate 100 mcg/albuterol 50 mcg inhalation powder once daily

Case Study: Maureen (cont’d)

- Severe, persistent throbbing pain in the right chest wall, extending from the back to the nipple line
- Pain began with an attack of herpes zoster (HZ) 2 years ago; pain continued through course of acyclovir therapy and persisted after healing of the rash
- Examination reveals an area that is extremely sensitive to light touch within and outside the affected dermatome
- There is some scarring at the site
- Maureen describes her pain as continuous—“like a deep burn” with episodes of sensations that feel like an electric shock
- The pain wakes her up at night but she has delayed seeing a doctor because she is afraid of having to take more “pain pills”

Which of the following are the most reliable types of information to diagnose the cause of Maureen’s pain?

1. Comprehensive and focused patient history
2. Imaging studies
3. Laboratory studies
4. Both comprehensive and focused patient history and imaging studies

Which of the following are the most reliable types of information to diagnose the cause of Maureen’s pain?

- Comprehensive and focused patient history
- Imaging studies
- Laboratory studies
- Both comprehensive and focused patient history and imaging studies

PHN: Pharmacologic Treatment Options

- Lidocaine patch 5%
- Capsaicin
- Anti-epileptics
- Tramadol
- Lamotrigine
- GABA receptor agonists
- Gabapentin®
- Topical lidocaine

*FDA-approved for use in treatment of pain associated with postherpetic neuralgia.*
Tricyclic Antidepressants in PHN

<table>
<thead>
<tr>
<th>Study</th>
<th>n</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watson et al (1982)</td>
<td>24</td>
<td>Amitriptyline 67% Placebo 5%</td>
</tr>
<tr>
<td>Max et al (1988)</td>
<td>24</td>
<td>Amitriptyline 67% Placebo 8%</td>
</tr>
<tr>
<td>Kishore-Kumar et al (1990)</td>
<td>19</td>
<td>Desipramine 63% Placebo 11%</td>
</tr>
<tr>
<td>Watson et al (1992)</td>
<td>32</td>
<td>Amitriptyline 44% Maprotiline 58%</td>
</tr>
<tr>
<td>Watson and Evans (1985)</td>
<td>15</td>
<td>Amitriptyline 60% Zimeldine 7%</td>
</tr>
</tbody>
</table>

- TCA adverse events include anticholinergic effects (sedation, dry mouth, urinary retention, weight gain), cardiac abnormalities, glaucoma precaution.
- Zimeldine not currently available in the US

Anticonvulsants in PHN

Anticonvulsant agents
- Gabapentin, pregabalin, lamotrigine

Clinical Benefits
- No drug-drug interactions, favorable safety profile, improvements within 1 week of therapy initiation
- More than one half of patients treated in clinical trials achieved 50% improvement in pain scores

Limitations/Adverse Events
- TID dosing, need to titrate to higher doses
- Somnolence, dizziness, ataxia
- Dose-dependent skin rash (lamotrigine)


Opoids in PHN

Opoids
- Oxycodone or oxycodone CR
- Tramadol

Clinical Benefits
- Positive results with pain relief up to 6 months reported with oxycodone CR
- Safer for diabetics with cardiac/renal disease

Limitations/Adverse Events
- High rates of AEs; dizziness, constipation, sedation, dry mouth
- Possible addiction/dependence


Other Antidepressants in PHN

- Selective serotonin-norepinephrine reuptake inhibitors
  - Duloxetine, venlafaxine
- Other antidepressants, including bupropion

Clinical Benefits
- Ease of administration, antidepressant efficacy for comorbid depression
- Safe for elderly patients, those with comorbid conditions

Limitations/Adverse Events
- May take up to 3 weeks for effect
- Somnolence, constipation, nausea, dizziness, dry mouth, sweating, increased appetite, sexual dysfunction and weakness
- Contraindicated in patients on MAO inhibitors

Pregabalin in PHN

US Trial: Daily Mean Pain Score

<table>
<thead>
<tr>
<th>Week</th>
<th>Placebo</th>
<th>Pregabalin*</th>
<th>Pregabalin†</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>0</td>
<td>0</td>
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<tr>
<td>3</td>
<td>6</td>
<td>0</td>
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US Trial: Weekly Mean Pain Score

<table>
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</tbody>
</table>

Opioids vs TCAs in PHN

<table>
<thead>
<tr>
<th>Pain rating (0-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placebo</td>
</tr>
</tbody>
</table>


Opioids vs TCAs in PHN

Given Maureen’s comorbid conditions and fear of additional oral medications, which of these agents is the rational first step to treat her pain and related sleep disturbance?

1. A nonopioid
2. A topical agent
3. A tricyclic antidepressant
4. An anticonvulsant
5. An opioid

Neuropathic Pain: The Case of “Linda” (cont’d)
- About a year ago, she began to feel numbness in feet, which gradually worsened, becoming uncomfortable, ascending to involve distal leg; discomfort gradually transitioned to pain
- She had been relatively active, now uses a cane to help walk
- Over last 2 weeks, pain has gotten progressively worse; now intense/burning, accompanied by tingling/prickling sensations. Constant for most of the day, pain is more intense at night and disturbs her sleep
- On preliminary physical examination, she does not appear to have any pustules or rash, nor does she report any outbreaks in recent months
- Examination of her feet reveals a symmetrical pattern of foot pain that is not increased by stimulus

Given the known information, what is the most probable cause for Linda’s pain?

1. Central nervous system (CNS) tumor or metastasis
2. Diabetic peripheral neuropathy
3. Herpes zoster infection
4. Fibromyalgia
5. None of the above

Diabetic Peripheral Neuropathy: Treatment Plan
- Discussion and negotiation of goals between patient and care team
- Treatment decisions based on clinical efficacy of therapeutic regimens, comorbid medical/psychological illness, and risk/benefit assessment
- "Realistic goals": pain reduction of 30%-50%

Diabetic Peripheral Neuropathy: Treatment Plan (cont’d)
- Questions for every patient visit:
  - Has your pain improved and to what degree?
  - Has the pain become worse?
  - Has the nature of the pain changed in any way?
  - Have your physical and social function improved, worsened, or remained unchanged? Be specific.
  - Are you satisfied with the results of your treatment?
**Duloxetine in DPN**

- Placebo (n=115)
- Duloxetine 20 mg/d (n=114)
- Duloxetine 60 mg/d (n=114)
- Duloxetine 120 mg/d (n=113)

Week Mean Change – 24-Hour Average Pain Severity Score

-3.5
-3
-2.5
-2
-1.5
-1
-0.5
0
123456789

Placebo (n=115)
Duloxetine 20 mg/d (n=114)
Duloxetine 60 mg/d (n=114)
Duloxetine 120 mg/d (n=113)


**Lamotrigine in DPN**

- Lamotrigine
- Placebo

Week Mean Pain Intensity (NPS)

Placebo (n=27)
Lamotrigine (500 mg/d) (n=26)


**Oxycodone in DPN**

- Oxycodone CR (n=82)
- Placebo (n=77)

Baseline Study day P=0.002

Average oxycodone dose = 29 mg/day days 1-14; increasing to average dose = 42 mg/day from days 15-43

**Tricyclic Antidepressants in DPN**

- Amitriptyline (n=12)
- Desipramine (n=13)
- Placebo (n=15)

Weeks

Change in pain score

Baseline


**Pregabalin in DPN**

- Placebo (n=70)
- Pregabalin (300 mg/d) (n=76)

Week

Unable to Sleep Due to Pain

No Sleep Interference Due to Pain


**Levels of Evidence for Therapies in DPN**

<table>
<thead>
<tr>
<th>Levels of Evidence</th>
<th>Therapeutic Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥2 RCT in diabetic neuropathy</td>
<td>Duloxetine,* oxycodone CR, pregabalin,* TCAs</td>
</tr>
<tr>
<td>≥1 RCT in DPN; ≥1 in other painful neuropathies</td>
<td>Gabapentin, lamotrigine, tramadol, venlafaxine, carbamazepine</td>
</tr>
<tr>
<td>≥1 RCT in other painful neuropathies</td>
<td>Bupropion, citalopram, methadone, paroxetine, phenytoin, topiramate</td>
</tr>
<tr>
<td>Demonstrated mechanism of action</td>
<td>Lidocaine, capsaicin</td>
</tr>
</tbody>
</table>

*FDA approved for use in the treatment of pain associated with diabetic peripheral neuropathy.

FDA-Approved Treatments for Neuropathic Pain
- Peripheral diabetic neuropathy
  - Duloxetine
  - Pregabalin
- Postherpetic neuralgia
  - Gabapentin
  - Lidocaine patch 5%
  - Pregabalin
- Trigeminal neuralgia
  - Carbamazepine

Nonpharmacologic Options for Neuropathic Pain
- Often used as adjunct to medications
- Physical rehabilitation
  - Graded fitness programs (includes gentle graded strength, cardiovascular, flexibility, balance)
  - Body mechanics, physical therapy, occupational therapy
- Modalities (ice/heat, massage, acupuncture, self-management)
- Transcutaneous electrical nerve stimulation
- Aquatic therapy

After 3 weeks of therapy with pregabalin 300 mg, Linda’s pain has decreased but she is experiencing side effects, appears depressed and avoids social activities. At this point, how could her current therapy best be modified?

1. Reduce to pregabalin 150 mg, add duloxetine
2. Reduce to pregabalin 150 mg, add tramadol
3. Reduce to pregabalin 150 mg, add lidocaine
4. Switch to a controlled-release opioid
5. None of the above

Neuropathic Pain - Summary
- Multifactorial etiologies and comorbidities can make NP syndromes difficult to treat
- NP has a negative influence on quality of life; affects physical/social activities, including sleep
- Highly variable individual responses to treatment require variety of nonpharmacotherapeutic and pharmacotherapeutic strategies to manage pain
- Important to establish realistic treatment goals of pain management prior to initiation of therapy
- New pharmacologic options continue to evolve and future for effective NP management is promising

Nonpharmacologic Options for Neuropathic Pain (cont'd)
- Behavior management
  - Depression/stress management
  - Relaxation techniques, meditation, hypnosis
  - Cognitive behavior
  - Chemical dependency assessment
  - Anger management, coping skills
  - Biofeedback

Chronic Pain - Summary
Goals for Primary Care Providers

- Critical step 1: early, accurate diagnosis
- Long-term chronic pain management
  - Reduce incidence and severity of symptoms
  - Evaluate potential barriers to long-term compliance, evidence-based therapies, role of opioids
  - Improve function, foster self-management
- Integrate healthcare team, identify roles
- Strive to maximize primary care physician role/outcomes prior to specialist referral

Comprehensive Management

- Requires the primary care physician to utilize a systematic approach, eg, the 10-step approach to long-term chronic pain management
- Requires interaction of all members of healthcare team\(^{\text{1,2}}\) coordinated by primary care physician
- Should seek patient self-management

Multidisciplinary Team Approach

- Manage multiple meds, ADLs, P/S

Considerations for Consultation

- Consider expert consultation if:
  - Uncertainty about diagnosis
  - Specialized treatment (eg, nerve block) is indicated
  - Unable to achieve pain and functional goals
  - Discomfort with opioid therapy in person with a history of substance abuse
  - Evidence suggests opioid misuse/abuse
  - Several treatments/combinations tried without success

Monitoring Long-term Chronic Pain Management

- Assess outcomes vis-à-vis goals
  - Evaluated at points of transition in care (eg, home to hospital, hospital to long-term care, etc)\(^{\text{1}}\)
  - Requires formal pain measurement tool that is developed and used by all members of the team\(^{\text{1,3}}\)
  - Routine assessment of occurrence, severity, and impact of adverse effects and complications associated with pain management\(^{\text{1,2}}\)
  - Assess patient concordance
  - May require modification of treatment plan or goals
  - May require consultation

Patient Education

- Begin at time of diagnosis
- Goals
  - Reduce incidence and severity of symptoms
  - Improve function
  - Foster patient self-management
  - Should include caregivers as appropriate
  - Should involve other members of healthcare team as appropriate
Considerations for Initiating Lifestyle Changes in Chronic Pain Care
- Identify perceived barriers to self-care among individuals with multiple chronic conditions
- Lifestyle changes necessitated by one condition may interfere with self-care for another
- Compound effects of multiple medications (e.g., schedule, coordination) interfere with self-care
- Repeated failure of patient to follow through with lifestyle changes raises questions about patient motivation and appropriateness of continued opioid therapy

Considerations for Initiating Complementary Medicine (CM)
- Extensive information available on-line to research/respond to questions about CM:
  - Acupuncture, herbal meds, Shiatsu, hypnosis
  - Chiropractic, osteopathy, relaxation therapy
  - National Institutes of Health CM site: http://nccam.nih.gov/
- Evaluate safety, outcomes, appropriate integration of CM and pharmacotherapy
  - Drug interactions, impact on patient self-care
  - Consider potential benefits and limitations
- Train practice staff in applications of CM

Complementary Medicine/Nonpharmacologic Management
- Exercise
- Distraction techniques
- Massage
- Ice/heat
- Patient education
- Physical & occupational therapy
- Relaxation techniques
- TENS
- Acupuncture
- Imagery, hypnosis
- Biofeedback
- Spirituality
- Cognitive behavior therapy/relaxation exercises
- Chiropractic
- Other alternative therapies
- Etc...

Questions/Discussion

How often do you plan to utilize a pain measurement tool when assessing chronic pain patients?
1. Always
2. Often
3. Rarely
4. Never
5. Haven’t decided

ARS POST-Questions
When considering starting an opioid for chronic pain patients, how often do you plan to screen for potential opioid abuse or addiction risk?

1. Always
2. Often
3. Rarely
4. Never
5. Haven’t decided

Which aspect of fibromyalgia do you consider most challenging?

1. Accurate diagnosis
2. Long-term pain management
3. Nonpharmacologic management
4. None of the above
5. I do not treat fibromyalgia patients

Which aspect of neuropathic pain do you consider most challenging?

1. Accurate diagnosis
2. Long-term pain management
3. Nonpharmacologic management
4. None of the above
5. I do not treat neuropathic pain patients