Improving the Care of Patients with Chronic Pain: Individualized Assessment and Mechanism-Based Multimodal Treatment

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Education Partner: Integritas Communications, LLC
Session 1: Improving the Care of Patients with Chronic Pain: Individualized Assessment and Mechanism-Based Multimodal Treatment

Learning Objectives
1. Discuss the neurobiologic mechanisms that contribute to chronic pain and associated functional disability.
2. Assess biologic, psychological, and social factors that contribute to chronic pain via detailed patient histories, comprehensive clinical interviews, and targeted physical exams.
3. Prescribe and tailor pharmacologic regimens for chronic pain that reflect published evidence of efficacy, likely disease mechanisms, functional goals, and patient-specific risks of adverse outcomes.
4. Incorporate nonpharmacologic approaches and patient education to improve analgesia, functional gains, and treatment adherence.
5. Manage chronic pain in diverse patient populations, including older patients and patients with comorbid medical or psychiatric disorders.

Faculty

Bill H. McCarberg, MD
Adjunct Assistant Clinical Professor
University of California, San Diego
Founder, Chronic Pain Management Program
Kaiser Permanente San Diego
Family Practitioner
Neighborhood Health
San Diego, California

Dr McCarberg is founder of the chronic pain management program for Kaiser Permanente in San Diego, California. He is on the board of directors of the American Academy of Pain Medicine and was on the board of directors of the American Pain Society. President of the Western Pain Society and adjunct assistant clinical professor at the University of California at San Diego School of Medicine, Dr McCarberg is also a member of the American Academy of Family Physicians, the American Academy of Pain Medicine, the American Pain Society, and the International Association for the Study of Pain. He is the recipient of several awards including the Shilling Compassionate Care Award and the Elizabeth Narcessian award for leader in the field of pain education from the American Pain Society. In 2008 he was appointed Ambassador of the Year for the National Pain Foundation. Member Appraisal of Physician Services at Kaiser Permanente has rated Dr McCarberg in the top 10% from 1998 through the present.

Dr McCarberg has given more than 250 presentations on pain management issues and is the author or coauthor of 78 articles, book chapters, and books. He is board certified by the American College of Pain Medicine, the American Board of Family Practice, and additionally certified in geriatrics. Dr McCarberg received his MD degree from Northwestern University Medical School in Chicago, Illinois. He completed a medical internship and a residency in family practice at Highland Hospital in Rochester, New York.

Steven P. Stanos, DO
Assistant Professor
Assistant Program Director
Multidisciplinary Pain Fellowship
Northwestern University Feinberg School of Medicine
National Director, Corporate Pain Services
Attending Physician, Center for Pain Management
Rehabilitation Institute of Chicago
Chicago, Illinois

Dr Stanos is assistant professor in the department of physical medicine and rehabilitation and assistant program director of the multidisciplinary pain fellowship at the department of anesthesia at Northwestern University Feinberg School of Medicine in Chicago, Illinois.

From 2002 to 2012, Dr Stanos served as medical director of the Center for Pain Management (CPM) at the Rehabilitation Institute of Chicago. The CPM provides a number of rehabilitation-based outpatient interdisciplinary treatment programs that
combine physical and occupational therapy, pain psychology, relaxation training, vocational rehabilitation, patient education, and medical management. In 2009, the CPM was awarded the American Pain Society’s Centers of Excellence Award for comprehensive treatment of chronic pain, the first rehabilitation hospital-based program to receive this designation. As national director of corporate pain services, Dr Stanos leads the institute in its focus of expanding inpatient and outpatient rehabilitation services for injured workers and facilitating ongoing collaboration with patient and industry stakeholders involved in the treatment of chronic pain. Dr Stanos maintains a busy clinical practice within the CPM.

Dr Stanos has published numerous book chapters and peer-reviewed articles related to the evaluation and treatment of chronic pain, particularly pharmacotherapy, and has been involved in the development and publication of treatment guidelines related to functional restoration programs and other rehabilitation approaches to managing chronic pain. Interested in clinical outcomes in multi- and interdisciplinary pain treatment, he serves as an investigator for a number of ongoing pharmacologic drug trials related to the treatment of chronic pain.

Currently on the board of directors of the American Academy of Pain Medicine, Dr Stanos has served as cochair of the American Academy of Physical Medicine and Rehabilitation (AAPM&R) Pain Task Force and as vice chair for the AAPM&R Pain and Neuromuscular Medicine Council. In 2010, he received a Service Award from the AAPM&R. He serves on the board of the Midwest Pain Society, on the editorial board of Pain Medicine News, and as section editor for the American Pain Society Bulletin. Dr Stanos has been featured on CNN, WebMD, National Public Radio, and various other media outlets discussing issues related to chronic pain management.

Dr Stanos received his DO from Nova Southeastern University in Miami, Florida. He completed an internship in the department of medicine at Chicago Osteopathic Hospitals & Medical Centers, a PM&R residency at the Rehabilitation Institute of Chicago, and a pain fellowship at the Northwestern University Medical School.

Charles E. Argoff, MD (Virtual Presenter)
Professor of Neurology
Albany Medical College
Director, Comprehensive Pain Center
Albany Medical Center
Albany, New York

Dr Argoff is professor of neurology at Albany Medical College and director of the Comprehensive Pain Center at Albany Medical Center in New York. He is a member of the American Academy of Neurology, the International Association for the Study of Pain, the American Academy of Pain Medicine, and the American Pain Society, among other professional organizations.

Dr Argoff is one of the editors of the recently published textbook Raj’s Practical Management of Pain, Fourth Edition. Coauthor of Defeat Chronic Pain Now, a recently published book for people with chronic pain, he has also recently released the third edition of Pain Management Secrets.

Dr Argoff received his MD degree from Northwestern University Medical School in Chicago, Illinois. He completed his medical internship in internal medicine and residency in neurology at Stony Brook University in New York and a fellowship in neurology at the National Institutes of Health in Bethesda, Maryland.

Faculty Financial Disclosure Statements
The presenting faculty reports the following:

Charles E. Argoff, MD, is a consultant for Collegium Pharmaceutical, and an advisor and on the speakers bureau for Depomed, Inc., Janssen Pharmaceuticals, Inc., and Pfizer Inc. He is an advisor for, receives research grants from, and is on the speakers bureau for Eli Lilly and Company, Endo Pharmaceuticals, Inc., and Forest Pharmaceuticals, Inc.

Bill H. McCarberg, MD, is an advisor for Elusys Therapeutics, Inc., NeurogesX Inc., Pfizer Inc., PriCara, Sucampo Pharmaceuticals, Inc., QRxPharma, LTD, Salix Pharmaceuticals, Inc., and Teva Pharmaceuticals Industries, Ltd.

Steven P. Stanos, MD, is a consultant and is on the advisory board for Depomed, Inc., Eli Lilly and Company, Endo Pharmaceuticals Inc., myMatrixx, and Ortho-McNeil-Janssen Pharmaceuticals, Inc. He is on the speakers bureau for Pfizer Inc.
**Education Partner Financial Disclosure Statement**

The content collaborators at Integritas Communications, LLC, report the following:

Jim Kappler, PhD, has no financial relationships to disclose.

**Suggested Reading List**


Improving the Care of Patients with Chronic Pain: Individualized Assessment and Mechanism-Based Multimodal Treatment

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Bill H. McCarberg, MD
Steven P. Stanos, DO
Charles E. Argoff, MD (Virtual Presenter)

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• Assess biologic, psychological, and social factors that contribute to chronic pain via detailed patient histories, comprehensive clinical interviews, and targeted physical exams.
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• Incorporate nonpharmacologic approaches and patient education to improve analgesia, functional gains, and treatment adherence.
• Manage chronic pain in diverse patient populations, including older patients and patients with comorbid medical or psychiatric disorders.

Medications Discussed in Program
• Medication classes
  - α₂δ ligands
  - Nonsteroidal anti-inflammatory drugs
  - Opioids (mu- and mixed MOA)
  - Serotonin-norepinephrine reuptake inhibitors
  - Topical agents
  - Tricyclic antidepressants
• Specific medications
  - Acetaminophen
  - Amitriptyline
  - Capsaicin
  - Celecoxib
  - Duloxetine
  - Gabapentin
  - Imipramine
  - Ibuprofen
  - Lidocaine
  - Mirtazapine
  - Morphine
  - Oxycodone
  - Pregabalin
  - Tapentadol
  - Tramadol

Presenter Disclosure Information
The following relationships exist related to this presentation:
• Bill H. McCarberg, MD, is an advisor for Elusys Therapeutics, Inc., NeurogesX Inc., Pfizer Inc., PriCara, Sucampo Pharmaceuticals, Inc., QRxPharma, LTD., Salix Pharmaceuticals, Inc., and Teva Pharmaceuticals Industries, Ltd.
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Off-Label/Investigational Discussion
• In accordance with pmiCME policy, faculty have been asked to disclose discussion of unlabeled or unapproved use(s) of drugs or devices during the course of their presentations.
**Demographic Question**

How many patients with chronic pain do you see each week?

1. None
2. 1-10
3. 11-20
4. 21-30
5. Over 30

**Preactivity Questionnaire**

During your physical examination of a patient with chronic lower back pain, you identify diffuse tenderness upon palpation. Your finding is indicative of ________.

1. Nociceptive pain
2. Neuropathic pain
3. Central sensitization
4. None of the above

**Preactivity Questionnaire**

How often do you perform sensory testing as part of your work-up for patients who present with knee pain related to osteoarthritis?

1. 100% of the time
2. 75% of the time
3. 50% of the time
4. 25% of the time
5. Never

**Preactivity Questionnaire**

Diclofenac or naproxen is an appropriate initial treatment choice to manage pain associated with diabetic peripheral neuropathy.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

**Preactivity Questionnaire**

How often do you use motivational interviewing techniques when managing patients with chronic pain?

1. 100% of the time
2. 75% of the time
3. 50% of the time
4. 25% of the time
5. Never

**Scientific Insights Into Nociception and Chronic Pain**

Charles E. Argoff, MD
Professor of Neurology
Albany Medical College
Director, Comprehensive Pain Center
Albany, New York
Mechanism-Based Pain Diagnosis

**Chronic LBP**

Musculoskeletal Pain

- Pain localized to area of injury (with/without somatic referral)
- Proportionate anatomic/mechanical relationship with aggravating and palliative factors
- Lack of burning pain, dysesthesias, antalgic postures/movements

Disproportionate, nonmechanical, unpredictable pain from nonspecific aggravating and palliative factors
- Pain disproportionate to injury/pathology
- Diffuse tenderness on palpation
- Strong association with maladaptive psychosocial factors

Nociceptive

Neuropathic

Central Sensitization

Chronic Pain Neurobiology

**Key Points**

- Chronic pain is a patient-specific biopsychosocial experience
- Central sensitization can increase pain sensitivity, perpetuate pain and associated disability, and disrupt endogenous analgesic systems
- Identifying pain mechanisms can improve diagnoses and aid in the selection of treatment strategies

ASSESSING COMMON CHRONIC PAIN CONDITIONS

Assess PQRSST
- Palliative or precipitating factors
- Quality of pain
- Region of radiation of pain
- Severity
- Temporal nature of pain

Perform relevant diagnostic tests

Detailed history
- Comorbidities
- Prior treatments
- Substance abuse

Treat the treatable — infections, fractures

Determine QoL, psychosocial, and, functional effects

Comprehensive Assessment

- Conduct physical exam
- Clarify pathophysiology
- JCAHO, Joint Commission on Accreditation of Healthcare Organizations; NPC, National Pharmaceutical Council; ORT, Opioid Risk Tool; QoL, quality of life; SOAPP-R, Screener and Opioid Assessment for Patients with Pain-Revised.
Osteoarthritis

Knee

- Pain
  - Osteophytes
  - At least 1 of the following:
    - Age, >50 years
    - Stiffness, ≤ 30 min
    - Crepitus

Hip

- Pain
  - At least 2 of the following:
    - Age, >50 years
    - ESR, <20 mm/h
    - Femoral or acetabular osteophytes on radiographs
    - Joint space narrowing on radiographs
    - Superior, axial, and/or medial

Pain

- At least 2 of the following:
  - Age, >50 years
  - ESR, <20 mm/h
  - Femoral or acetabular osteophytes on radiographs
  - Joint space narrowing on radiographs

ESR, erythrocyte sedimentation rate.


Central Sensitization in Knee Osteoarthritis

Increased pain sensitivity at both affected and remote sites suggests that sensory testing may be helpful in patients with knee osteoarthritis.

N=24 patients (knee pain on VAS ≥ 6) and 24 control subjects.

Sequential pressure stimulation (10 stimuli, 1-s duration, 1-s interval) was applied to affected knee and remote site (tibialis anterior).

VAS, visual analog scale.


Acute and Chronic Knee Pain Differential Diagnosis

- Knee osteoarthritis
- Patellofemoral arthritis/syndrome
- Prepatellar bursitis
- Pes Anserine Tendonitis
- Internal derangement
  - Meniscal or ligamentous injury
- Lumbar radiculopathy
  - L3 or L4


Assessment

- Comprehensive physical examination
  - Combinations of tests
- Complete patient history
- Psychosocial considerations

Apprehension Test

TUG Test

Peripheral Neuropathies

Patient Assessment

- Target physical exam
  - Somatosensory function
  - Reflexes
  - Muscle strength
  - Identify affected nerve fibers
    - Painful neuropathies often present with distal and symmetric symptoms
- Use questionnaires
  - Neuropathic Pain Symptom Inventory
  - Neuropathic Pain Questionnaire
- Consider diagnostic testing


Neuropathic Pain

Etiology-Based Classification

- Focal/multifocal lesions of peripheral nervous system
  - Entrapment syndromes
  - Phantom limb pain, stump pain
  - Postherpetic neuralgia
  - Diabetic mononeuropathy

- Lesions of the CNS
  - Spinal cord injury
  - Multiple sclerosis

- Generalized lesions of the peripheral nervous system
  - Diabetic peripheral neuropathy
  - HIV neuropathy
  - Vitamin B deficiency
  - Toxic neuropathies (arsenic, thallium, taxoids)

- Mixed pain syndromes
  - Chronic low back pain with radiculopathy
  - Cancer pain with malignant pleural invasion
  - Complex regional pain syndromes

Sensory Testing

- Map affected area
  - Compare with unaffected area
- Monitor disease progression
- Monitor treatment responses


Low Back Pain
Anatomy of Lumbosacral Spine

- ALL, anterior longitudinal ligament; ISL, interspinous ligament; LF, ligamentum flavum; PLL, posterior longitudinal ligament; SSL, supraspinous ligament.


Lumbar Facet Joints
Zygapophysial Joints

- Synovial joints that link the vertebrae together
- Each contains superior and inferior facets and a capsule
- Provide flexibility to the spine


Goals of LBP Assessment
Clinical Practice Guideline Recommendations

- Rule out
  - “Red flags” and potentially serious spinal pathology
  - Specific causes of LBP
  - Substantial neurologic involvement
- Evaluate
  - Symptom severity
  - Functional limitations
- Focus physical and neurologic exam
  - Myotomes
  - Dermatomes
  - Deep tendon reflexes
- Formulate differential diagnosis


Chronic Low Back Pain
Physical Exam Overview

- Pain behaviors
- Gait, range of motion
- Sensory testing
- Motor strength
- Muscle stretch reflexes
- Myofascial assessment
- Dural tension testing
- Sacroiliac joint testing


Static Stance Assessment

PSIS, posterior superior iliac spine.
Sensory Testing
Dermatomes in Lower Extremities

• Radiculopathies result from spinal nerve root damage
• Symptomatic areas of pain, weakness, and/or numbness reflect specific level at which the spinal cord is affected


Motor Strength Testing

<table>
<thead>
<tr>
<th>Nerve</th>
<th>L4</th>
<th>L5</th>
<th>S1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor weakness</td>
<td>Knee extension</td>
<td>Dorsiflexion of great toe and foot</td>
<td>Plantarflexion of great toe and foot</td>
</tr>
</tbody>
</table>

Screening exam
Squat and rise
Heat walking
Walking on toes

5 = Normal, full range of motion vs gravity, maximum resistance
4 = Good, full range of motion vs gravity, moderate resistance
3 = Fair, full range of motion vs gravity, no resistance
2 = Poor, full range of motion, gravity eliminated
1 = Trace
0 = No activity


Muscle Stretch Reflexes

Lower Limbs
– Patella (L2, L3, L4)
– Medial hamstring (L5, S1)
– Achilles (S1, S2)

Scoring
– 4+ = hyperactive with clonus
– 3+ = more brisk
– 2+ = normal response
– 1+ = decreased with facilitation
– 0 = no response


Myofascial Trigger Points

ATP: attachment trigger point, CTP: central trigger point.


Dural Tension Signs

Straight Leg Raise
Slumped Seated

Appropriate tension applied to nerve roots when leg is moved between 35° and 70° from relaxed position


Sacroiliac Joint and Pelvis

Appropriate tension applied to nerve roots when leg is moved between 35° and 70° from relaxed position

Sacroiliac Joint Pain Referral Zones

<table>
<thead>
<tr>
<th>Pain Referral Zones</th>
<th>Patients, % N = 54</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buttocks</td>
<td>94</td>
</tr>
<tr>
<td>Thigh</td>
<td>48</td>
</tr>
<tr>
<td>Lower leg</td>
<td>28</td>
</tr>
<tr>
<td>Foot/ankle</td>
<td>13</td>
</tr>
<tr>
<td>Groin</td>
<td>14</td>
</tr>
<tr>
<td>Abdomen</td>
<td>2</td>
</tr>
</tbody>
</table>


Sacroiliac Joint Assessment Provocative Tests

- Compression Test
- Patrick's Sign
- Gaenslen Test
- Sacroiliac Joint Border Tenderness


Chronic Pain Assessment

Key Points

- Assess all physical, psychosocial, and behavioral contributors to the chronic pain condition
- Identify underlying neurobiologic mechanisms whenever possible
- Focus patient histories, clinical interviews, and physical exams to identify sources of pain

Multimodal Treatment

- Pharmacotherapy
  - MOA: analgesics, CBT, cognitive-behavioral therapy, NRSAB, nonsteroidal anti-inflammatory drug, SNRI, serotonin-norepinephrine reuptake inhibitor, TCA, tricyclic antidepressant
- Strategies for Managing Pain and Associated Disability
- Intervventional Approaches
  - Injections, neurostimulation
- Psychological Support
  - Psychotherapy, CBT group supports
- Lifestyle Change
  - Exercise, weight loss

Use combinations of therapies to achieve functional goals

Drug

- MOA: mechanism of action
- NRSAB, nonsteroidal anti-inflammatory drug
- SNRI, serotonin-norepinephrine reuptake inhibitor
- TCA, tricyclic antidepressant

- Evidence of efficacy and safety
- Consider data from the Cochrane Pain, Palliative, and Supportive Care Review Group
- Potential adverse events
- Clinical practice guidelines
- Drug-drug interactions

Selecting an Analgesic

- Diagnosis
  - Nociceptive
  - Inflammatory
  - Neuropathic
  - Central sensitization
- Patient Characteristics
  - Symptom severity
  - Comorbidities
  - Treatment goals
  - Medical and psychiatric history
  - Age
  - Patient preference

MOA: mechanism of action
Pharmacotherapy for Chronic Pain
An Evidence-Based Approach

<table>
<thead>
<tr>
<th>Drug</th>
<th>LBP</th>
<th>NP</th>
<th>FM</th>
<th>OA</th>
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<tbody>
<tr>
<td>APAP</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>NSAIDs (eg, ibuprofen, celecoxib)</td>
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<td>✔️</td>
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<td>✔️</td>
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<tr>
<td>TCA (eg, amitriptyline, imipramine)</td>
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<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>SNRI (eg, duloxetine, milnacipran)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>α2/δ ligands (eg, gabapentin, pregabalin)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Opioids (eg, morphine, oxycodone)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Capsaicin</td>
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<tr>
<td>Lidocaine</td>
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Checks indicate positive randomized controlled trials. FM, fibromyalgia; LBP, low back pain; OA, osteoarthritis.

Common and Other Notable Adverse Events

- APAP
  - FDA advisory committee has recommended decreasing maximum daily dose from 4000 mg to 3250 mg owing to liver toxicity risk
- NSAIDs
  - Gastrointestinal and renal complications
  - Increased risk of serious cardiovascular events
- TCA
  - Myocardial infarction, suicide attempt, sedation, sexual dysfunction, akathisia, postural hypotension, heart block
- SNRI
  - Nausea, dizziness, sedation
- α2/δ ligands
  - Somnolence, dizziness, peripheral edema
- Opioids
  - Nausea, constipation, sedation, pruritus
- Tramadol
  - Abuse potential
- Tapentadol
  - Opioid side effects
- Capsaicin
  - Initial burning sensation may persist
- Lidocaine
  - Skin rash

FDA, Food and Drug Administration.


Nonpharmacologic Treatment Modalities

- Psychological Support: CBT, Biofeedback, Relaxation Training, Supportive psychotherapy
- Lifestyle Change: Exercise, Weight loss
- CAM: Massage, Spinal manipulation, Supplements, Homeopathy, Acupuncture
- Physical Medicine and Rehabilitation: Hot/cool presses, Physiotherapy, TENs, Hydrotherapy

Pharmacotherapy for Chronic Pain
Safety Considerations

Motivational Interviewing

Brief Action Planning 3 Core Questions

- "Is there anything you would like to do for your health in the next week or two?"
  - Elicit preferences/desires for behavior change
- "How confident do you feel about your plan?"
  - Evaluate confidence
- "Sounds like that plan is going to work for you. When would you like to check in with me to review how you are doing with your plan?"
  - Arrange for follow-up

Motivational Interviewing

- Express Empathy
- Support Self-Efficacy
- Develop Discrepancy
- Roll With Resistance

CBT for LBP in Primary Care

- Advice plus CBT intervention
- Mean change from baseline 2.4 points (95% CI 1.89-2.84)
- P=0.0002
- Mean change from baseline 1.7 points (95% CI 0.39-1.72)

Follow-up

- Assess pain relief
- Monitor side effects
- Evaluate predefined functional goals
- Tailor therapy appropriately

Pharmaceuticals

- APAP
- NSAIDs
- TCA
- SNRI
- Opioids
- SNRI
- Tramadol
- Capsaicin
- Lidocaine

FDA, Food and Drug Administration.


Supportive psychotherapy

- Biofeedback
- Relaxation training
- Supportive psychotherapy

Pharmacotherapy for Chronic Pain
An Evidence-Based Approach

- Psychological Support: CBT, Biofeedback, Relaxation Training, Supportive psychotherapy
- Lifestyle Change: Exercise, Weight loss
- CAM: Massage, Spinal manipulation, Supplements, Homeopathy, Acupuncture
- Physical Medicine and Rehabilitation: Hot/cool presses, Physiotherapy, TENs, Hydrotherapy

Pharmacotherapy for Chronic Pain
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FDA, Food and Drug Administration.

Chronic Pain Management

Summary

- Use combinations of pharmacologic and nonpharmacologic approaches to target physical and psychosocial functional goals
- Whenever possible, match underlying pain pathophysiology to drug MOA
- Stratify patients for risks associated with drug-drug interactions, preexisting medical conditions, and potential for prescription drug abuse
- Establish a working alliance with patients to encourage self-management and hold patients accountable

Build-a-Case

Question #1

Which of the following barriers to assessment should be included in the case study?
1. Significant anxiety and depression
2. Mild dementia
3. Mild spastic monoplegia

Build-a-Case

Question #2

Which of the following comorbid issues should be included in the case study?
1. Significant fatigue and disturbed sleep
2. Long history of alcohol abuse
3. Hypertension

How does the presence of significant anxiety and depression complicate the assessment of Joe's back pain?
Which of the following treatment approaches would you recommend for Joe?

1. Tramadol extended-release
2. Gabapentin
3. Serotonin norepinephrine reuptake inhibitor
4. Increase the daily ibuprofen dose (currently 1600 mg daily)
5. Cognitive behavioral therapy

How would you restructure Joe’s treatment?

1. Increase the gabapentin dose
2. Add an opioid
3. Add a serotonin norepinephrine reuptake inhibitor
4. Discontinue gabapentin and prescribe an alternate agent
5. Continue with current treatment
During your physical examination of a patient with chronic lower back pain, you identify diffuse tenderness upon palpation. Your finding is indicative of ________.
1. Nociceptive pain
2. Neuropathic pain
3. Central sensitization
4. None of the above

As a result of this educational activity, how often will you perform sensory testing as part of your work-up for patients who present with knee pain related to osteoarthritis?
1. 100% of the time
2. 75% of the time
3. 50% of the time
4. 25% of the time
5. Never

Diclofenac or naproxen is an appropriate initial treatment choice to manage pain associated with diabetic peripheral neuropathy.
1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

As a result of this education activity, how often will you use motivational interviewing techniques when managing patients with chronic pain?
1. 100% of the time
2. 75% of the time
3. 50% of the time
4. 25% of the time
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Question & Answer