Demystifying Low Back Pain in Primary Care

Warren Bodine, DO, FAOASM

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Warren Bodine, DO, FAOASM

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Dr. Bodine earned his medical degree and completed an osteopathic family medicine residency at the University of Medicine and Dentistry of New Jersey (UMDNJ) School of Osteopathic Medicine, Stratford. He also completed a fellowship in primary care sports medicine at Christiana Care Health Care System in Wilmington, Delaware. He practices osteopathic primary care sports medicine and has head team physician experience caring for athletes at all levels. Dr. Bodine’s leadership experience includes serving in positions on the Massachusetts Medical Society’s Committee on Student Health and Sports Medicine, the Massachusetts Interscholastic Athletic Association’s Sports Medicine Committee, and the National Board of Osteopathic Medical Examiners’ Family Medicine Faculty. He also serves as a concussion trainer for the Massachusetts Department of Public Health.
Learning Objectives

1. Perform history and physical examination utilizing multidimensional pain, functional, psychological and opioid assessment tools to evaluate patients presenting with back pain.

2. Select appropriate diagnostic imaging tests, as necessary, for patients with back pain emphasizing that imaging is not necessary in the absence of red flag signs and symptoms.

3. Identify, elicit, and document red flags signs and symptoms that indicate a need for immediate aggressive treatment or referral to a spine specialist, and coordinate referral and follow-up as necessary.

4. Develop collaborative care plans with appropriate pharmacologic, non-pharmacologic including appropriate physical therapy trials, or combination treatment plan for a patient with low back pain.

5. Identify and consistently utilize evidence-based algorithms and focus on teaching self-management skills rather than salvage therapy for long-term control of back pain.

Audience Engagement System

Step 1

Step 2

Step 3
How I Treat Low Back Pain

- Take a thorough history
- Learn about the individual behind the pain
- Assess and manage patient’s expectations at every encounter
- Provide interventions in a step-wise fashion (non-Rx 1st)
- Not a “one size fits all” algorithm
- Give the patient what works for them
- Treat mental illness and depression
Poll Question 1

What percentage of Americans will report one episode of low back pain in the next 3 months?

A. 25%
B. 40%
C. 50%
D. 75%
E. 85%

Scope of the Problem

• Low back pain is the second most common reason for primary care physician visits in the United States.
• Approximately one quarter of U.S. adults reported having low back pain lasting at least 1 day in the past 3 months → 2/3 of these that recover will have recurrence within 12 months.
• Total costs attributable to low back pain in the United States were estimated at $100 billion in 2006, two thirds of which were indirect costs of lost wages and productivity.
Timing is Everything

After 12 weeks off work, employees at a major US manufacturer had only a 50% chance of ever returning to work.

Initial Back Pain Evaluation

BACK PAIN INITIAL EVALUATION

- PRIMARY CARE--50%
- ORTHOPEDIST--33%
- DC, PAIN MGMT/OTHER-17%
Physicians Not Following Guidelines

- Despite numerous published clinical guidelines, management of back pain has relied increasingly on guideline discordant care
- NSAID or acetaminophen use per visit decreased from 36.9% (1999-2000) → 24.5% (2009-2010)
- Narcotic use increased from 19.3% → 29.1%
- CT/MRI referrals increased from 7.2% → 11.3%

Primary Care Reluctance to Address Low Back Pain

Knowledge Gaps in the Following:

- Etiologies of Low Back Pain and Red Flags
- Use of Diagnostic Imaging
- Recommendation of Pharmacologic Treatments
- Recommendation of Non-pharmacologic Treatments
Definition of Low Back Pain

- Pain/muscle tension/stiffness
- +/- sciatica/radicular symptoms
- Between L1-L5

- Acute: present up to 6 weeks
- Subacute: 6-12 weeks
- Chronic: present for > 3 months; significant enough to impact function/quality of life
- Non-specific Low Back pain: pain not attributable to a recognizable pathology

Etiologies of Low Back Pain

Intrinsic

- Compression Fracture
- Herniated/Bulging/Ruptured Disc
- Lumbar Strain/Sprain
- Spinal Stenosis
- Spondylolisthesis
- Spondyloysis
- Spondylosis
- Scoliosis
- Facet arthropathy
Etiologies of Low Back Pain

Systemic
- Connective Tissue Disease
- Inflammatory Arthropathy
- Malignancy
- Vertebral osteomyelitis

Referred
- AAA
- GI/GU/pulmonary/CV/pelvic conditions
- Herpes Zoster
- Pregnancy/obesity
- Fascial trigger points
- Sacroiliac Joint Dysfunction
- Piriformis Syndrome

Don’t forget Cauda Equina Syndrome

- Urinary retention
- Fecal incontinence
- Saddle anesthesia
- Motor deficits at multiple levels
History

- Onset of pain
- Location of pain
- Duration: timing of pain
- Character: sharp, dull, scale of 0-10
- Aggravating factors
- Relieving factors
- Treatments attempted
- Medical and social history
- Consider “Red flags” and “Yellow flags”

OLDCART

Pain Assessment

One Dimensional
- Visual Analog
- Faces Scale

Multidimensional
- Oswestry
- McGill
- Brief Pain Inventory
- Graded Pain Scale
PEG Scale

1. What number best describes your **pain on average** in the past week?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
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<tbody>
<tr>
<td>No Pain</td>
<td>Pain as bad as you can imagine</td>
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</tbody>
</table>

2. What number best describes how, during the past week, pain has interfered with your **enjoyment of life**?

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not interfere</td>
<td>Completely interferes</td>
<td></td>
<td></td>
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</table>

3. What number best describes how, during the past week, pain has interfered with your **general activity**?

<table>
<thead>
<tr>
<th>0</th>
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<th>10</th>
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</tr>
</tbody>
</table>

Pain Cycle

1. Pain Signal
2. Muscle Tension
3. Fight or flight response
4. Exhaustion
5. Depression
6. Insomnia
7. Lack of movement
8. Chronic pain medications

Pain Cycle
Red Flags

- Age < 20 or >50
- Severe or progressive neurologic deficit
- Bladder/bowel dysfunction
- History of cancer
- Fever or unexplained weight loss
- Disturbed gait and saddle anesthesia

- Patients with back pain in the primary care setting (80 percent) tend to have one or more red flags, but rarely have a serious condition

Yellow Flags

- Affect: anxiety; depression; feeling of uselessness
- Behavior: adverse coping strategies; passive attitude about treatment
- Beliefs: thinks pain is “the worst” and must be eliminated before returning to activity
- Social: history of abuse; lack of support
- Work: expectation that pain will increase with work; pending litigation; unsupportive employer
Questions to Address Psychosocial Factors

- Have you had time off work in the past with back pain?
- What do you understand is the cause of your back pain?
- What are you expecting will help you?
- How is your employer responding to your back pain? Your co-workers? Your family?
- What are you doing to cope with back pain?
- Do you think that you will return to work? When?

Physical Examination

- Informal observation
- Full PE on initial evaluation, focused PE on subsequent visits
- Neurologic evaluation on initial evaluation

- Inspection (skin/posture)
- Palpation
- Active Range of motion (flexion, extension, lateral flexion, axial rotation)
- Gait and Mobility
- Bilateral neural tension test (straight leg raise test)
- FABER test
Poll Question 2

An afebrile patient with low back pain notices pain going down the posterior lateral aspect of the R thigh/leg. On exam she has a +SLR, sensory deficit on the lateral aspect of the R foot, a diminished ankle jerk, weakness with plantar flexion of great toe and inability to perform toe walking. Which nerve root is likely affected?

A. L2  
B. L3  
C. L4  
D. L5  
E. S1

Physical Examination

- Gait Analysis
- Heel Walking
- Toe Walking
- Strength of Lower Extremities
- Reflexes of Lower Extremities
- Sensation of Lower Extremities
Straight Leg Raise Test

- Reproduce Pain on affected side
- Usually between 30-60 degrees
- With knee extended, raise leg until pain is reproduced
- Dorsiflex foot (increases sensitivity of test if pain is increased)
- Sensitivity 91%; Specificity 26%
- Cross SLR—passively raising the opposite leg reproduces sciatica (sensitivity 29%; specificity 88%)

FABER/Patrick Test

- Hip or Sacroiliac joint; isolates spasm to the iliopsoas/piriformis muscle
- Flex, ABduct, and externally rotate the hip, pain while completing maneuver is positive
- Sensitivity 77%; Specificity 100%
# STANDING

<table>
<thead>
<tr>
<th>Test</th>
<th>Muscle/Region</th>
<th>Description</th>
<th>Abnormalites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trendelenburg</td>
<td>Gluteus Medius</td>
<td>Behind pt, observe dimples over post sup iliac spine. Stand on one leg, alternate.</td>
<td>abnormal = dimple on unsupported side falls</td>
</tr>
<tr>
<td>Gillet's</td>
<td>SI joint</td>
<td>Behind patient, thumbs on SI joints, flex one hip, alternate.</td>
<td>abnl = SI moves superior; nl = SI moves inferior</td>
</tr>
<tr>
<td>Gluteus Strength</td>
<td>Gluteus Complex</td>
<td>One legged squat.</td>
<td>weakness</td>
</tr>
</tbody>
</table>

# SEATED

<table>
<thead>
<tr>
<th>Test</th>
<th>Muscle/Region</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwyer's</td>
<td>Sciatic nerve</td>
<td>Knees flexed, passively extend knees. same symptoms as SLR</td>
</tr>
</tbody>
</table>

# SUPINE

<table>
<thead>
<tr>
<th>Test</th>
<th>Muscle/Region</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>True Leg Length</td>
<td>Leg length</td>
<td>Measure ASIS to med malleolus. If differs, flex knees to 90°, feet flat, observe knees. knee higher = longer tibia; anterior = longer femur</td>
</tr>
<tr>
<td>Thomas</td>
<td>Hip flexion</td>
<td>Place hand in small of back, flex hip until lordosis gone/feel pressure on hand. unable to keep contra lateral leg flat</td>
</tr>
<tr>
<td>Ely</td>
<td>Hamstring and quad flexibility</td>
<td>Lay flat on back, lower legs dangling off table. Flex hip and knee, unable to keep contra lateral leg relaxed on table</td>
</tr>
<tr>
<td>Piriformis</td>
<td>Piriformis</td>
<td>Resisted ext rotation or forced passive int rotation. reproduce symptoms</td>
</tr>
<tr>
<td>Straight Leg</td>
<td>Sciatic nerve or hamstring and disc</td>
<td>Passive hip flex w/knee extended. Then flex knee</td>
</tr>
<tr>
<td>Raise</td>
<td>Sciatic nerve</td>
<td>90° compress nerve in popliteal fossa (CRAM) same symptoms as SLR</td>
</tr>
<tr>
<td>Lasègue’s</td>
<td>Sciatic nerve</td>
<td>SLR until pain, back off and dorsiflex foot same symptoms as SLR</td>
</tr>
<tr>
<td>Sprunt’s</td>
<td>Sciatic nerve</td>
<td>Flex hip/knee 90°, then extend knee, same symptoms as SLR</td>
</tr>
<tr>
<td>Patrick/FABER</td>
<td>SI joint</td>
<td>Flex foot/ankle on opposite knee, abduct/ext rotate leg w/gentle pressure on top of flexed knee pain in ipsilateral SI joint, dec motion = contracture</td>
</tr>
<tr>
<td>Gaenslen’s</td>
<td>SI joint</td>
<td>Passive hip maximal flexion with opposite side passive maximal hip extension. pain at SI joint (must R/O other hip/nerve problems)</td>
</tr>
<tr>
<td>Hip Rotation</td>
<td>SI joint</td>
<td>Mark level of medial malleol. Abduct, ext rotate leg, bring back to neutral. Repeat with int rot.</td>
</tr>
</tbody>
</table>

# SIDE LYING

<table>
<thead>
<tr>
<th>Test</th>
<th>Muscle/Region</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Ober</td>
<td>Iliotibial band</td>
<td>Lie on uninvolved side, stabilize pelvis, passively flex, abduct, extend upper hip in arc. Slowly lower. pain, knee unable to reach/pass normal</td>
</tr>
<tr>
<td>Modified Ober</td>
<td>Gluteus Complex</td>
<td>Lie on uninvolved side, stabilize pelvis, flex, abduct, extend upper hip. Actively hold in place. weakness</td>
</tr>
</tbody>
</table>

# PRONE

<table>
<thead>
<tr>
<th>Test</th>
<th>Muscle/Region</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Femoral Nerve Stretch</td>
<td>Femoral nerve</td>
<td>Flex knee to 90°, stabilize pelvis, passively extend hip. pain in anterior thigh</td>
</tr>
<tr>
<td>Yeoman’s</td>
<td>SI joint</td>
<td>Stabilize Pelvis, passive hip ext rot/ext. pain at SI joint</td>
</tr>
</tbody>
</table>
Poll Question 3

What percentage of patients that present with low back pain will have a clear anatomical explanation?

A. 15%
B. 25%
C. 50%
D. 75%
E. 90%

What is the Pain Generator?

Classify patient as:

• Nonspecific (Acute/Subacute/Chronic)
• Radicular pain
• Pain from another cause
When to Image?

• In patients with LBP that cannot be attributed to a specific disease or spinal abnormality following H&P, imaging with xray, CT or MRI Does Not improve outcomes.

(ACP Strong recommendation, Moderate-quality evidence)

When to Image?

OK to Image when:

• You perform thorough exam
• Concern for infection, fracture, cauda equina syndrome
• Patient with radicular symptoms concerning for specific LBP
• Patient has leg weakness that is disabling and worsening
• Required before intervention
Poll Question 4
What percentage of asymptomatic patients will have an abnormality on Lumbar MRI?

A. 10%
B. 20%
C. 50%
D. 60%
E. 75%

Treatment Strategies
- Rx
- Manual/Physical
- Procedures
- Behavioral
Pharmacologic Therapies

Acute/Subacute Low Back Pain

- Acetaminophen
  - no difference vs Placebo or NSAIDs
- NSAIDS
  - small improvement in pain intensity
  - small increase in function compared with placebo, no difference in COX-2 selective vs traditional NSAIDs
Acute/Subacute Low Back Pain

• Skeletal Muscle Relaxants
  -improved pain after 2-4 and 5-7 days
• Systemic Corticosteroids
  -no improvement in pain/function of IM methylprednisolone or 5 days of oral prednisone
• Other Therapies
  -insufficient evidence to determine effectiveness of antidepressants, benzodiazepines, anti-seizure medications or opioids vs placebo

Chronic Low Back Pain

• NSAIDs
  -small to moderate improvement in pain
• Opioids
  -strong opioids (tapentadol, morphine, hydromorphine, oxymorphone) had small improvements in pain/function
  -no difference among long acting opioids for pain/function
  -Tramadol had moderate pain relief and small improvement in function
Chronic Low Back Pain

- Skeletal Muscle Relaxants
  - insufficient evidence vs placebo
- Benzodiazepines
  - tetrazepam improved pain relief at 5-7 days, overall improvement 10-14 days

Chronic Low Back Pain

- Antidepressants
  - no difference in pain between TCAs/SSRIs
    - Duloxetine had small decrease in pain and increase in function
- Other Rx
  - insufficient (acetaminophen, systemic corticosteroids or anti-seizure medications)
Radicular Low Back Pain

- Benzodiazepines
  - no difference in function at 1 week through 1 year

- Systemic Corticosteroids
  - no difference in pain, no to small effect on function

- Other Therapies
  - NSAIDs inconsistent for pain

Pharmacologic Therapies

<table>
<thead>
<tr>
<th>Class of Low Back Pain</th>
<th>Acute/Subacute</th>
<th>Chronic</th>
<th>Radicular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen [=placebo]</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>NSAIDs [SOE low to moderate]</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Muscle Relaxants/BZD</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Opioids [SOE low to moderate]</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Steroids [=placebo]</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Tramadol/Tapentadol [SOE moderate]</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duloxetine [SOE moderate]</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topical Agents</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Nonpharmacologic Therapies

Acute/Subacute Low Back Pain

- Exercise
  - inconsistent results, no difference between different exercise regimens
- Acupuncture
  - small decrease in pain intensity, slight increase in likelihood of overall improvement
- Massage
  - moderately improved short term pain relief/function
  - better results when combined with another intervention
Acute/Subacute Low Back Pain

- **Spinal Manipulation**
  - Small effect on function, better long term pain relief
  - Combined with exercise, improved function at 1 week

- **Superficial Heat**
  - Moderate improvement in pain relief and disability
  - Combined with exercise, improved function at 7 days
  - More pain relief and function compared with acetaminophen or ibuprofen after 1-2 days

- **Low-Level Laser Therapy**
  - Combined with NSAIDs – large decrease in pain intensity and moderate improvement in function

- **Lumbar supports**
  - No difference in pain or function

- **Other Therapies** - insufficient evidence
  - TENS, inferential therapy, short-wave diathermy, traction, Pilates, Tai chi, yoga, ultrasound, taping, superficial cold
Chronic Low Back Pain

- Exercise
  - improvement in pain relief and function
- Motor Control Exercise
  - decreased pain scores and improved function in short to long term follow up
  - improvement in function
- Pilates
  - no effect on pain/function

Chronic Low Back Pain

- Psychological Therapies
  - Progressive relaxation therapy: improved pain intensity and function
  - Biofeedback: decreased pain
  - Behavioral therapy with reinforcement: decreased pain
  - CBT: decreased pain
  - mindfulness based stress reduction: improved pain and function
- Tai Chi/Yoga
  - moderate pain improvement and function
Chronic Low Back Pain

- Multidisciplinary Rehabilitation
  - decreased pain intensity (short and long term), disability, and improved function
  - https://www.summitmedicalgroup.com/library/adult_health/

- Acupuncture
  - lower pain intensity and improved function

- Massage
  - decreased pain and improved function

LOW BACK PAIN EXERCISES:

- Standing hamstring stretch: Put the heel of one leg on a stool about 15 inches high. Keep your leg straight. Lean forward, bending at the hips until you feel a mild stretch in the back of your thigh. Make sure you do not roll your shoulders or bend at the waist when doing this. You want to stretch your leg, not your lower back. Hold the stretch for 15 to 30 seconds. Repeat with each leg 3 times.
- Cat and canard: Get down on your hands and knees. Let your stomach sag, allowing your back to curve downward. Hold this position for 3 seconds. Then arch your back and hold for 5 seconds. Do 2 sets of 15.
- Overhead arm and leg raise: Sit down on your hands and knees. Pull your belly button and tighten your abdominal muscles to stiffen your spine. While keeping your abdomen tight, raise one arm and the opposite leg away from you. Hold this position for 5 seconds. Lower your arm and leg slowly and change sides. Do this 10 times on each side.
- Pelvic tilt: Lie on your back with your knees bent and your feet flat on the floor. Pull your belly button in towards your spine and push your lower back into the floor, flattening your back. Hold this position for 15 seconds, then relax. Repeat 3 to 10 times.
- Partial curl: Lie on your back with your knees bent and your feet flat on the floor. Draw your abdomen and tighten your stomach muscles. With your hands stretched out in front of you, curl your upper body forward until your shoulders clear the floor. Hold this position for 3 seconds. Don’t hold your breath. It helps to breathe out as you lift your shoulders. Relax back to the floor. Repeat 10 times. Build to 2 sets of 15. To challenge yourself, clasp your hands behind your head and keep your elbows out to your sides.
- Gluteal stretch: Lie on your back with both knees bent. Rest your right ankle over the knee of your left leg. Grasp the thigh of the left leg and pull toward your chest. You will feel a stretch along the buttocks and possibly along the outside of your hip. Hold the stretch for 15 to 30 seconds. Then repeat the stretch with your left ankle over your right knee. Do the exercise 3 times with each leg.
- Extension exercise: Lie face down on the floor for 5 minutes. If this hurts too much, lie face down with a pillow under your stomach. This should relieve your leg or back pain. When you can lie on your stomach for 5 minutes without a pillow, you can continue with Part B of this exercise.
- After lying on your stomach for 5 minutes, prop yourself up on your elbows for another 5 minutes. If you can do this without having more leg or back pain, you can start doing part C of this exercise.
- Lie on your stomach with your hands under your shoulders. Then press down on your hands and extend your elbows while keeping your hips flat on the floor. Hold for 1 second and lower yourself to the floor. Do 3 to 5 sets of 10 repetitions. Repeat for 1 minute between sets. You should have no pain in your legs when you do this, but it is normal to feel some pain in your lower back. Do this exercise several times a day.
- Side plank: Lie on your side with your legs, hips, and shoulders in a straight line. Prop yourself up onto your forearm with your elbow directly under your shoulder. Lift your hips off the floor and balance on your forearm and the outside of your foot. Try to hold this position for 15 seconds and then slowly lower your
Chronic Low Back Pain

- Spinal manipulation
  - improved pain and function when used in combination with other active treatments
- Ultrasound: no effect on pain or function
- TENS: no effect on pain or function
- Low Level Laser Therapy: improved pain and function

Radicular Low Back Pain

- Exercise: Small improvement in pain
- Traction: No effect on pain or function
- Other Therapies- no effect on pain or function
  - Ultrasound, MCE, Pilates, Tai chi, yoga, psychological therapies, rehabilitation, acupuncture, massage, spinal manipulation, LLLT, electrical muscle stimulation, short-wave diathermy, TENS, interferential therapy
## Nonpharmacologic Therapies

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<th>Chronic</th>
<th>Radicular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise [SOE low to moderate]</td>
<td>X</td>
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<td>X</td>
</tr>
<tr>
<td>Physical Therapy [SOE moderate]</td>
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<td>X</td>
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</tr>
<tr>
<td>Acupuncture [SOE moderate]</td>
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<td>X</td>
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<tr>
<td>Massage [SOE low]</td>
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<td>X</td>
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<tr>
<td>Low Lever Laser Therapy [SOE low]</td>
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<td>X</td>
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<tr>
<td>Yoga/Tai Chi [SOE low]</td>
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<td>X</td>
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<tr>
<td>Spinal Manipulation [SOE moderate]</td>
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## Comparison of ACP Guidelines

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<tbody>
<tr>
<td>Acetaminophen</td>
<td>Effective for acute low back pain</td>
<td>No difference in effectiveness in acetaminophen vs placebo</td>
</tr>
<tr>
<td>TCAs</td>
<td>Effective for chronic low back pain</td>
<td>TCAs not effective for chronic low back pain compared to placebo</td>
</tr>
<tr>
<td>Non-pharmacologic</td>
<td>Interventions had similar results</td>
<td></td>
</tr>
<tr>
<td>Superficial heat</td>
<td>more effective for acute or sub-acute LBP</td>
<td></td>
</tr>
<tr>
<td>Ultrasound and TENS</td>
<td>Not effective</td>
<td></td>
</tr>
</tbody>
</table>
Summary of 2017 ACP Guidelines

Acute/Subacute low back pain
• Non-Rx: superficial heat, massage, acupuncture, spinal manipulation
• Rx: NSAIDs or skeletal muscle relaxants

Summary of 2017 ACP Guidelines

Chronic Low Back Pain
• Non-Rx: exercise, PT, acupuncture, stress reduction, CBT, LLLT, spinal manipulation
• Rx: NSAIDs (1st line); Tramadol or Duloxetine (2nd line); Opioids only if failed other measures and benefits> risks
### Procedures

<table>
<thead>
<tr>
<th>Outpatient (PCP)</th>
<th>Specialty</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Acupuncture</td>
<td>• Epidural Steroid Injection</td>
</tr>
<tr>
<td>• Dry Needling</td>
<td>• Facet Nerve Block</td>
</tr>
<tr>
<td>• Trigger Point Injection</td>
<td>• Prolotherapy</td>
</tr>
<tr>
<td></td>
<td>• Nerve Stimulator</td>
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<tr>
<td></td>
<td>• Pumps</td>
</tr>
<tr>
<td></td>
<td>• Surgery</td>
</tr>
</tbody>
</table>

### Behavioral

- Mindfulness-based stress reduction
- Cognitive Behavioral Therapy
- Meditation
- Biofeedback
- Address underlying psychosocial disorders
Self Care

- Stay active (avoid bed rest) and use superficial heat
- Maintain healthy diet/weight
- Maintain proper posture and engage the core
- Identify expectations at every visit
- Provide reassurance

<table>
<thead>
<tr>
<th>Class of Low Back Pain</th>
<th>Acute/Subacute</th>
<th>Chronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remain Active, managing expectations</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Handouts/books</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Superficial Heat</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Practice Recommendations

• Perform a focused H&P and classify low back pain patients into: non-specific; radicular; from another cause
• Inform patients about expected treatment course, advise to remain active and give self treatment options
• Order imaging with severe/progressive neurologic deficits exam suggestive of severe underlying condition

YES You Can Treat Low Back Pain

• Take a thorough history
• Learn about the individual behind the pain
• Assess and manage patient’s expectations at every encounter
• Provide interventions in a step-wise fashion (non-Rx 1st)
• Not a “one size fits all” algorithm
• Give the patient what works for them
• Treat mental illness and depression
Thank You

- Warren.Bodine@glfhc.org

Questions
References


References