Improving Decision-Making in Low Back Pain: How to Target the Right Treatment at the Right Patient

Evidence Based Examination
- Patient Values & Expectations
- Individual Clinical Expertise
- Best External Evidence

Stats...No not stats
- Sensitivity
  - a highly 'Sensitive' test, when Negative rules OUT disease (SN-N-OUT).
- Specificity
  - A highly 'Specific' test, when Positive, rules IN disease (SP-P-IN)

Stats...No not stats
- Positive Likelihood Ratios
  - +LR • Tells you the odds of the condition increasing when the test is positive.
- Negative Likelihood Ratios
  - -LR • Tells you the odds of the condition decreasing when the test is negative.

54% of people with chronic LBP have depression

Two Question Screen
- During the past month have you often been bothered by feeling down, depressed, or hopeless?
- During the last month have you often been bothered by little interest or pleasure in doing things?
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Two Question Screen
Sensitivity: .97
Specificity: .67
- LR: .05
+ LR: 2.9

What about the BIG C?
- Over the age of 50
- Previous History of Cancer
- Unexplained wt. loss

Physical Examination
- Standing Active ROM
  - Flexion
  - Extension
    - Combined extension, side bending, and rotation
  - Side Bending
  - Trunk Rotation
  - Shearing

Dermatomes
- L1 - Inguinal region
- L2 - Anterior mid-thigh
- L3 - Distal anterior thigh
- L4 - Medial lower leg/foot
- L5 - Lateral leg/foot
- S1 - Lateral side of foot
- S2 - Plantar surface of foot
- S3 - Groin
- S4 - Perineum/genitals

Myotomes
- L2-L3 = Hip Flexor
- L3-L4 = Knee Extensors
- L4 = Ankle Dorsiflexors
- L5 = Hallux Extension
- L5-S1 = Ankle Plantarflexors
- S1-S2 = Ankle Evertors

Neurological Screen
- Reflexes
  - L4 = Quadriceps
  - S1 = Achilles
- Upper Motor Neuron Screen
  - Babinski
  - Hoffman
  - Clonus
  - Romberg

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Seated Examination

- Seated Trunk Rotation
- SLUMP
  - Order spinal flexion, neck flexion, knee extension and ankle DF with decreased tension from cervical extension.
  - Diagnostic Accuracy unknown

Supine Examination

- Hip ROM
- FABER
- FADDIR
- SLR

Seated Trunk Rotation

SLUMP

- Order spinal flexion, neck flexion, knee extension and ankle DF with decreased tension from cervical extension.
- Diagnostic Accuracy unknown

FABER

- Positive test = groin or buttock pain
- Tests for SIJ region pain or hip pathology
- Diagnostic Accuracy
  - Sensitivity = .71
  - Specificity = 1.0
  - + LR = 0
  - - LR = .23
  - Reliability .6 (based on anesthetic block of the SIJ)

Flexion Adduction Internal Rotation Test

FADDIR

- Positive test = pain in the piriformis region
- Tests for hip pathology i.e. labral tears
- Diagnostic Accuracy
  - Sensitivity = .75
  - Specificity = .43
  - + LR = 1.32
  - - LR = .58

Straight Leg Raise

- Positive test reproduces pain in the back or leg at < 40 degrees or less for the presence of a disk herniation
- Diagnostic Accuracy

Crossed Straight Leg Raise

- Positive if it reproduces pain in the involved leg
- Assessing disc pathology on the opposite side
- Diagnostic Accuracy
  - Sensitivity = .29
  - Specificity = .88
  - + LR = 2.411
  - - LR = .8011
Prone Assessment

Joint Mobility Assessment (P.A.s)

- Positive if pain provoking.
- Grade hypomobile, normal or hypermobile
- Specificity = .95
- Sensitivity = .43
- -LR = .6
- +LR = 8.6
- Reliability .25-.57

Prone Instability Test

- Sensitivity = .72
- Specificity = .58
- -LR = .48
- +LR = 1.7

Hip Assessment

- Hip ROM
  - Internal rotation performed in the CPR for Acute LBP
- Femoral nerve mobility

Sacroiliac Joint Tests

What Do We Know?
Bibliography

Bibliography