# Spine MMI/IR/EOI Case-Based Webinar
# Module 2
## *Instructions*

This document contains the Spine MMI/IR cases that will be addressed during the upcoming case-based webinar.

It's imperative that you work the cases in advance of participating in the webinar. The solutions to the cases will be discussed during the webinar. Please note any questions you have about these cases while you are working them.

## *Disclaimer*

The material presented in this webinar is made available by the Texas Department of Insurance - Division of Workers' Compensation (TDI-DWC) for educational purposes only. The material is not intended to represent the only method or procedure appropriate for the medical situations discussed. Rather, it is intended to present an approach, view, statement, or opinion of the faculty, which may be helpful to others who face similar situations.

# Spine MMI/IR Case 1

62 year old female veterinarian's assistant began having low back pain after lifting 100-lb. dog at work

Initial pain drawing showed left lumbosacral pain

X-rays on date of injury showed a well healed compression fracture with less than 25% loss of anterior height of L1 vertebral body

Developed pain in left leg in a patchy distribution approximating L5-S1 on left which persisted

Lumbar MRI at six weeks demonstrated a 2 mm right paracentral protrusion at L5-S1

- No edema in any vertebral body

At MMI

- Right lumbar list
- Deviation to the right with lumbar flexion
- Limitation of right side bend with increased left lumbosacral pain
- Able to walk on heels and toes and squat without evidence of weakness
- Achilles DTRs absent bilaterally
- 1+ patellar DTRs bilaterally
- Symmetric LE girth
- Complaints of decreased sensation left shin and lateral foot
- LE strength 5/5
- Left SLR $54^{o}$ with increased LBP, increased with ankle dorsiflexion
- Right SLR $70^{o}$ limited by hamstring tightness

**On the date of MMI, what is the appropriate lumbosacral DRE category and why?**

A. DRE II: Due to a compression fracture at L1
B. DRE II: Due to non-uniform loss of range of motion
C. DRE III: Due to radiculopathy from loss of sensation
D. DRE III: Due to radiculopathy from loss of relevant reflex

# Spine MMI/IR Case 2

25-year-old painter fell off a ladder sustaining fracture of inferior right L5 facet

Non-contrast lumbar CT and lumbar MRI showed acute right L5 facet fracture, no displacement of fracture into spinal canal

Initial exam demonstrated

- Decreased sensation in right L5 distribution
- Weakness in right hip abductors, tibialis anterior and EHL
- Absent right medial hamstring DTR

At MMI

- EMG/NCS at 6 weeks post injury interpreted to show "acute right L5 radiculopathy"
- LE DTRs symmetrically decreased
- Right SLR $60^{o}$ with increased LBP and posterior thigh pain increased with ankle dorsiflexion
- Left SLR $70^{o}$ limited by hamstring tightness
- Decreased sensation in L5 dermatome

**On the date of MMI, what is the whole person IR?**

A. DRE I = 0%
B. DRE II = 5%
C. DRE III = 10%
D. DRE IV = 20%

# Spine MMI/IR Case 3

45 year-old carpenter began having right low back and right lower extremity pain after lifting lumber at work

Lumbar MRI showed 8 mm right posterolateral L4/5 HNP compressing the right L5 nerve root

Lumbar ESI x 3 and PT with improvement

EMG interpreted by neurologist to be positive for right L5 radiculopathy

Does not want to pursue surgery, ESI or further treatment

At MMI

- History left knee ACL reconstruction
- Complains of intermittent low back and right buttock, posterior thigh and lateral calf pain
- Worsened with cough/sneeze, sitting, lifting and other activities involving trunk flexion
- Achilles DTRs 2+ bilaterally
- Patellar DTRs 1+ left, 2+ right
- Unable to elicit hamstring reflexes on either side
- Lumbar ROM
  - Flexion 35°
  - Extension 25°
  - RLF 20°
  - LLF 10°
- Right SLR $55^{o}$ which produces right low back, buttock, posterior thigh and calf pain
- Further worsened with ankle dorsiflexion and hip internal rotation/adduction
- Left SLR $70^{o}$ limited by hamstring tightness
- 4/5 strength of right EHL and hip abductors
- Symmetric LE girth

**On the date of MMI, what is the whole person IR?**

A. DRE I: 0%
B. DRE II: 5%
C. DRE III: 10%
D. DRE IV: 20%

# Spine MMI/IR/EOI with Multiple Certfications ordered

45 year-old male warehouse worker with acute onset low back pain after lifting 150-lb. tool box four months ago

Medical records document low back pain on date of injury with left buttock, posterior thigh and calf radicular pain five days later

Physical exam 2 weeks post injury

- Left leg weakness
- Slightly decreased ankle DTR
- Left SLR positive for increased left leg symptoms

Lumbar x-rays show L5/S1 spondylosis

Lumbar MRI shows L5/S1 disc degeneration, ligamentum flavum and facet hypertrophy L5/S1; 6 mm left posterolateral disc herniation left L5-S1 with impingement exiting left S1 nerve root

Signs and symptoms persist despite 10 visits of PT, NSAIDS, muscle relaxants and narcotic pain medication

ESI and surgery denied because extent of injury beyond a lumbar sprain/strain disputed

DD Exam 4 - Months Post Injury for MMI, IR and EOI

- Box 37 of DWC Form-032 completed by insurance carrier lists injury accepted as compensable by insurance carrier as “lumbar sprain/strain”. Box 38 is blank
- Box 36C of DWC Form-032 lists the injuries (diagnoses/body parts/conditions) in question, claimed to be caused by, or naturally resulting from accident or incident
  - Facet hypertrophy at L5/S1
  - Ligamentum flavum hypertrophy L5/S1
  - Disc desiccation at L5/S1 lumbar spine
  - L5-S1 disc herniation with impingement on exiting left S1 nerve root
- You define the compensable injury for certifying MMI and IR
  - Lumbar sprain/strain
  - L5-S1 disc herniation with impingement on exiting left S1 nerve root (from 36C)
  - Left S1 radiculopathy (not included in Box 37 or 36C)
- Explain in report basis in medical records and certifying exam that led to conclusion

You address ***Extent of Injury***, with causation analysis, that injury ***does not*** extend to
- Facet hypertrophy and at L5/S1
- Ligamentum flavum hypertrophy L5/S1
- Disc desiccation at L5/S1 lumbar spine

You address ***Extent of Injury***, with causation analysis, injury ***does*** extend to
- L5-S1 disc herniation with impingement on exiting left S1 nerve root

Multiple certifications of MMI/IR, each with DWC Form-069, all explained in your report
- Certification 1 – The POD listed injuries accepted by the insurance carrier
- Certification 2 – The POD listed carrier accepted plus all the conditions listed in the POD as being disputed
- Certification 3 – Your opinion of the compensable injury, ifdifferent than the first two.

**Certification 1**
MMI/IR for injury *accepted as compensable by insurance carrier noted in the POD* as “lumbar sprain/strain”

**Certification 2**
MMI/IR for the injury accepted by the carrier ***plus*** *all disputed conditions listed in the POD*
- Lumbar sprain/strain
- Left S1 radiculopathy
- L5-S1 disc herniation with impingement on exiting left S1 nerve root
- Facet hypertrophy at L5/S1
- Ligamentum flavum hypertrophy L5/S1
- Disc desiccation at L5/S1 lumbar spine

**Certification 3**

MMI/IR for what you defined injury to be

- Lumbar sprain/strain
- L5-S1 disc herniation with impingement on exiting left S1 nerve root
- Left S1 radiculopathy

**EOI – Connect the Dots**

accident/incident

**+**

claimed injury

**+**

claimant's medical history and treatment

**+**

evidence based medicine, where applicable

**+**

appropriate legal terms

**What about "aggravation"?**
**EBM for lumbar spine,**
**HNP, etc.**