DESIGNATED DOCTOR 101 WEBINAR

Pre-Course Cases

Instructions

Prior to attending the DD 101 Webinar, review the following "example" cases and the answers provided. Also review the "pre-course work" cases below and determine the answers, in preparation for discussion during the webinar.

Maximum Medical Improvement (MMI) Concepts

"Maximum medical improvement" means the earlier of:

- Clinical MMI: The earliest date after which, based on reasonable medical probability, further material recovery from or lasting improvement to an injury can no longer reasonably be anticipated.

- Statutory MMI: The expiration of 104 weeks from the date on which income benefits began to accrue. (The statutory MMI date can be extended by Commissioner's order (not the Designated Doctor) for an approved spinal surgery.)

MMI can never be later than the statutory MMI date.

- Consideration of the Official Disability Guidelines (ODG) - including Appendix D to determine if, based on reasonable medical probability, additional treatment can be anticipated to result in further material recovery or lasting improvement

Example MMI Case 1

History of Injury

IE is a 62 year old male police officer who twisted his left knee while apprehending a suspect, sustaining a tear of the medial meniscus.

Treatment History

- Initially treated conservatively with rest, ice, compression and elevation for 2 weeks, followed by 9 visits of PT over 3 weeks
- Minimal improvement – MRI and ortho consult
- Arthroscopic partial medial meniscectomy was performed 7 weeks post injury
- Return to work 8 weeks post injury in sedentary capacity

Imaging

- MRI scan done 6 weeks after the injury revealed a tear of the posterior horn of the medial meniscus.

Additional Treatment

IE underwent PT following surgery, consisting of 12 visits over 6 weeks; PT discharge (14 weeks post injury) revealed:

- Weight bearing tolerance limited to 30 minute intervals
- Walking with shortened stance and swing phases
- ROM: extension minus 5 degrees, flexion 110 degrees
- Slow progression of exercises/activities, ROM, strength
- Working restricted duty in sedentary capacity

Orthopedic surgeon 14 weeks post injury documents "slow progress with PT", similar findings and recommends 6 additional visits of PT

Initial denial of PT insurance carrier/utilization review – "request exceeds ODG recommended PT"

DD Medical History (16 weeks post injury)

- PMH – obese, Type II diabetic
- RTW in sedentary capacity
- Walking limited to 2 blocks approximately
- Intermittent swelling, and "weakness" but no locking or buckling since his surgery

DD Physical Exam (16 weeks post injury)

- Gait with shortened stance and swing phases
- Left thigh circumference (measured 10 cm above the patella with the knee fully extended and the muscles relaxed) was 1.5 cm smaller than the right
- Left quadriceps and hamstrings 4+/5
- Left knee ROM minus 5 degrees of extension to 110 degrees of flexion

Has MMI been reached? If so, on what date?

A. Yes, the IE reached MMI 8 weeks post injury when he returned to work

B. Yes, the IE reached MMI 14 weeks post injury after completing the ODG recommended amount of post-op PT

C. Yes the IE reached MMI 16 weeks post injury, the date of the DD exam.

D. No, the IE has not yet reached MMI

MMI Case 1 ANSWER:

D. No, the IE has not yet reached MMI

- Statutory MMI has not been reached
- Additional treatment, time, etc. in all reasonable medical probability is anticipated to result in further material recovery or lasting improvement
- Consider ODG (including Appendix D)
- Explain this in your narrative report!

Example MMI Case 2

History of Injury

IE is a 48 year-old, male roofer who fell off a ladder bracing his fall with his outstretched right arm, sustaining a displaced distal radius fracture.

Treatment History

- IE was seen in the ER the day of injury and subsequently treated with open reduction and internal fixation
- Released to return to work with restrictions 4 weeks post injury, however employer did not accommodate restricted duty – “come back when you are 100%”
- Delayed fracture healing treated with bone stimulator.
- 9 months post injury an x-ray showed that the fracture had healed

Imaging

- X-rays day of injury show distal radius fracture with posterior displacement
- X-rays 9 months post injury show healed wrist fracture

Additional Treatment

- 6 months post injury the IE complained of loss of sensation in his fingers.
- 8 months post injury nerve conduction studies revealed delay across the carpal tunnel, and the interpreting neurologist identified a very severe median nerve entrapment neuropathy
- At 10 months post injury, after fracture had healed the surgeon performed an endoscopic release of the carpal tunnel
- The IE attended 8 visits of physical therapy over the following month; discharged 11 month post injury, handwritten illegible notes
- Orthopedic surgeon follow-up at 12 months post injury documented “slightly deceased wrist ROM, 5/5 strength with UE MMT, normal UE 2 point discrimination, RTW without restrictions and return as needed

DD Medical History (14 months post injury)

- Was terminated from prior job, has not RTW
- The IE tells you that he thinks that he needs more physical therapy because of ongoing pain, tingling, and problems holding onto objects

DD Physical Exam (14 months post injury)

- 15 mm of 2 point discrimination over palmar and dorsal aspects of all 5 fingers and entire hand
- UE (including hand) strength 5/5 bilaterally with encouragement
- Wrist ROM - extension 40 degrees, flexion 50 degrees, radial deviation 15 degrees, ulnar deviation 25 degrees
- Submaximal 5 position and rapid exchange grip

Has MMI been reached? If so, on what date?

A. Yes, the IE reached MMI 11 months post injury when he completed PT
B. Yes, the IE reached MMI 12 months post injury when he saw the orthopedic surgeon
C. Yes the IE reached MMI 14 months post injury, the date of the DD exam.
D. No, the IE has not yet reached MMI

MMI Case 2 ANSWER: MMI before DD Exam

B**.** Yes, the IE reached MMI 12 months post injury when he saw the orthopedic surgeon

- PT discharge notes do not adequately document IE's medical condition
- IE reaches clinical plateau (MMI) prior to Designated Doctor Exam (DDE) with no intervening change in condition or reasonable expectation of improvement. Medical condition is unchanged so you may use physical exam findings at DDE for IR on MMI prior to DDE.
- Explain this in your narrative report!

Example MMI Case 3

History of Injury

IE is a 38 year-old, male painter who lifted a 5 gallon bucket of paint off of high shelf, injuring his right shoulder

Treatment History

Initial denial of claim, resolved in IE's favor 6 months post injury

Imaging

MRI scan 6 months post injury shows full thickness rotator cuff tear, type II acromion

Additional Treatment

- Non-operative treatment consisting of 2 corticosteroid injections and 18 visits of concurrent PT over 3 months with only minimal improvement in ROM and activity tolerance
- Rotator cuff repair with acromioplasty at 9 months post injury
- 18 months post injury IE sustains recurrent rotator cuff tear in PT
- Compensability of injury disputed, resolved in IE's favor 26 months post injury
- Statutory MMI 105 weeks post injury
- Recurrent rotator cuff repair 27 months

DD Medical History (28 months post injury)

- Was terminated by employer, has not RTW
- Immobilized, doing passive ROM in PT

DD Physical Exam (28 months post injury)

Unable to examine ROM, etc., due to immobilization

Has MMI been reached? If so, on what date?

A. Yes, the IE reached MMI 18 months post injury the date before he sustained a new injury to his shoulder in PT

B. Yes, the IE reached MMI 105 weeks post injury, the date of statutory MMI

C. Yes the IE reached 27 months post injury, the date of the DD exam

D. No, the IE has not yet reached MMI

MMI Case 3 ANSWER: DD Exam after Statutory MMI

B. Yes, the IE reached MMI 105 weeks post injury, the date of statutory MMI

- IE was not at clinical MMI prior to statutory MMI
- MMI can never be later than the statutory MMI date

Example MMI Case 4

History of Injury

IE is a 28 year-old, male landscape crew foreman began having low back and left posterior thigh pain after lifting and carrying a rock at work 10 months ago.

Treatment History

- 6 visits of physical therapy (PT) and 2 different NSAIDs, without improvement in his symptoms or activity tolerance
- Released to return to work with restrictions; however, his employer was unable to accommodate the restrictions

Imaging

- 4 weeks post injury plain film x-rays and a lumbar MRI scan were obtained. Plain film x-rays showed moderate spondylosis at L5/S1
- 6 weeks post injury lumbar MRI scan revealed 8 mm posterolateral left L5/S1 herniated nucleus pulposus (HNP) displacing the left S1 nerve root

Additional Treatment

- 2 translaminar lumbar epidural steroid injections at L5/S1 with significant improvement for 3 weeks or so after each injection, but his symptoms persisted
- 36 weeks post injury, he underwent a left L5/S1 hemi-laminotomy/discectomy resulting in some relief of his lower extremity symptoms
- 42 weeks post injury he completed 18 visits of post op PT including recovery of lumbar ROM, trunk strengthening, lower extremity stretching, and neural mobilization procedures
- He was released to return to restricted duty work during the last 2 weeks of PT, with instructions about lifting with lumbar lordosis and no more than 50 pounds
- He found a new job as a landscape crew foreman, and was able to RTW without incident
- 44 weeks post injury he saw his treating doctor who noted:

- Improvement but persistent back and left lower extremity pain
- Lumbar flexion was fingertips to proximal shin, which reproduced pain in the left low back and left lower extremity pain, lumbar extension was slightly decreased with increased lower back pain
- Left SLR produced low back, buttock, posterior thigh and calf pain at 55 degrees, all increased with ankle dorsiflexion
- Left Achilles DTR was decreased and there was numbness to pinprick over the left lateral foot
- Left ankle plantar flexion was graded as 4+/5
- He did not want to pursue additional interventional pain management procedures and wanted to continue his home exercise program and working

DD Medical History (58 weeks post injury)

- Has continued RTW as a landscape crew foreman without complication
- Reports he has continued home exercise program per PT instruction, noting continued improvement in symptoms, endurance and ADL tolerance

DD Physical Exam (58 weeks post injury)

- Well healed surgical scar lower lumbar spine
- No trunk list or deformity
- Able to walk on heels, toes, squat and perform 10 calf raises bilaterally without weakness
- 5/5 LE strength bilaterally
- Lumbar flexion was fingertips to distal shin, with mild left low back pain, lumbar extension was essentially full with increased lower back pain.
- SLR limited by hamstring tightness at 75 degrees bilaterally without neural tensions signs
- Left Achilles DTR was decreased and there was numbness to pinprick over the left lateral foot

Has MMI been reached? If so, on what date?

A. Yes, the IE reached MMI 42 weeks post injury the date he was discharged from post-op PT

B. Yes, the IE reached MMI 44 weeks post injury, the date his follow-up with his treating doctor

C. Yes the IE reached MMI 58 weeks post injury, the date of the DD exam

D. No, the IE has not yet reached MMI

MMI Case 4 ANSWER:

C. Yes the IE reached MMI 58 weeks post injury, the date of the DD exam

Continuation of his home exercise program (HEP), ADLs and time would reasonably be anticipated to result in further material recovery – and this occurred

Example – MMI/IR Spine Case 1.

History of Injury

28 year old grocery stocker injured his low back after lifting boxes of heavy canned goods at work. He continued working the remaining 2 hours of his shift without any additional lifting, and was seen at an occupational medicine clinic the next morning.

IE complained of moderately severe low back and right buttock pain occasionally going down into the right leg.

Treatment History

- The treating physician prescribed 6 visits of PT and an NSAID at the initial visit
- After 4 PT visits the injured employee returned to the treating doctor. The treating doctor found no muscle guarding. There was restricted range of motion, but the IE did report some significant decrease in the pain in his right buttock and leg, and some relief of his low back pain
- Employer was able to accommodate restrictions of no lifting over 20 pounds placed by the TD

Imaging

3 weeks post injury lumbar spine MRI shows mild disc desiccation at L5/S1 with a 2mm concentric annular bulge, but no nerve root impingement, disc herniations, foraminal or central stenosis.

Additional Treatment

- TD examined the IE 9 weeks post injury, following 10 visits of PT. The IE reported significant improvement with only occasional mild low back pain that did not interfere with activities of daily living
- The TD reported the IE had normal range of motion, no signs of muscle guarding, and normal reflexes
- TD released him to return to work without restrictions

DD Medical History (25 weeks post injury)

- Chief complaint of occasional low back stiffness and mild pain with prolonged sitting. He indicates he takes over-the-counter ibuprofen for these occurrences
- He indicated he felt no need for any further treatment, and was continuing to work without restrictions

DD Physical Exam (25 weeks post injury)

- Mildly decreased lumbar ROM globally
- SLR to over 75 degrees with only hamstring tightness
- Bilaterally symmetric patellar and Achilles deep tendon reflexes (DTRs)
- Normal sensation to pinprick over lateral feet bilaterally
- Able to perform 10 of 10 complete calf raises
- Thigh and calf circumference bilaterally symmetric equal

Has MMI been reached?

Yes, the IE is at MMI.

If so, on what date?

9 weeks post injury at his treating doctor follow up visit.

As of the MMI date, what is the IR?

Spine Case 1 ANSWER: 0% whole person Impairment

IE's lumbosacral spine impairment is rated per the diagnosis-related estimates (DREs) on pages 102 and 103 of the AMA Guides 4th Edition. DRE Lumbosacral Category 1 Complaints or Symptoms on page 102 fits this IE's condition as he has no significant clinical findings, no muscle guarding or history of guarding, no non-verifiable radicular complaints, no significant signs of radiculopathy, neurologic impairment, no significant loss of structural integrity and no indication of impairment related to injury or illness. DRE Lumbosacral Category 1 = 0% whole-person impairment. There are no structural inclusions.

Example - Spine Case 2

History of Injury

25 year old man who works as an apprentice carpenter had an onset of pain in his back six months ago when he twisted to the right to lift a 15 pound box of tools. There was no leg pain, but he did feel sharp and stabbing pain in the region of the left sacroiliac joint.

Treatment History

- Initial evaluation by the treating doctor (TD) on the day of injury showed he was unable to assume lumbar lordosis with standing and a list to the left. There were no other findings documented
- The TD prescribed an NSAID and restricted duty work
- TD re-examination 2 weeks later documented marked limitation of motion of the back because of pain. There was "spasm" and a sciatic scoliosis. Left straight-leg raising caused left low back and buttock pain at about 55 degrees and was aggravated by dorsiflexion of the foot but not by plantar flexion of the foot
- Lumbar MRI was obtained 4 weeks post injury
- IE had 12 visits of physical therapy and a lumbar ESI, completed 12 weeks post injury, with reported improvement, however the electronic health records from the pain management physician and PT did not adequately document the IE's clinical condition
- TD follow up 16 weeks following the injury the IE reported his pain had gradually resolved over several weeks and he no longer had consistent pain. There was no lumbar list. Lumbar flexion was "slightly decreased", "SLR, lower extremity DTRS and strength were normal". The IE had returned to work full duty 12 weeks post injury and was performing his job without difficulty. However, he experienced some low back pain after working long hours, for which he reported relief with his home exercises and OTC naproxen sodium on occasion

Imaging

Lumbar MRI scan 4 weeks post injury showed a left paracentral 4 mm HNP just touching the left L5 nerve root without compression.

Additional Treatment

None.

DD Medical History (30 weeks post injury)

- IE has no complaints of consistent pain and stated that infrequently he had recurrent low back and left buttock pain after working long hours and took an NSAID occasionally and did some of the exercises from PT for pain relief
- IE continues to work without restrictions
- IE does not want to pursue additional treatment such as a repeat ESI or surgery
- No interim medical care since seeing his treating doctor at 16 weeks post injury

DD Physical Exam (30 weeks post injury)

- Moderately decreased lumbar flexion (finger tips to proximal shin), full extension
- Lower extremity DTRs, sensation and strength are normal
- Left SLR reproduces left low back pain at 65 degrees, further increased with ankle dorsiflexion

Has MMI been reached?

Yes, the IE is at MMI.

If so, on what date?

16 weeks post injury at his treating doctor follow up visit.

As of the MMI date, what is the IR?

Spine Case 2 ANSWER: 5% whole-person impairment

IE's lumbosacral spine impairment is rated per the diagnosis-related estimates (DRE) on pages 102 and 103 of the AMA Guides 4th Edition. DRE Lumbosacral Category II Minor Impairment on page 102 fits the IE's condition as he had significant intermittent or continuous muscle guarding that has been observed and documented by a physician, non-uniform loss of range of motion, as well as non-verifiable radicular complaints. There are no objective signs of radiculopathy (loss of relevant reflexes or 2 cm or greater lower extremity atrophy) and no loss of structural integrity. DRE Lumbosacral Category II = 5% whole-person impairment. There are no structural inclusions.

PRE-COURSE WORK - Spine Case 3

History of Injury

28 year old female real estate agent was involved in a frontal impact motor vehicle accident, injuring her neck.

Treatment History

- Initial evaluation by the treating doctor (TD) on the day of injury showed "loss of cervical range of motion" and "spasm of the right cervical muscles"
- TD diagnosed cervical sprain/strain and prescribed an NSAID and 6 visits of PT involving stretching exercises.

- Her symptoms of neck pain, restricted movement and occipital headache persisted. She also developed intermittent pain and numbness in her right forearm, index finger and thumb.
- She was able to return to part time work with restrictions

Imaging and Electrodiagnostic Studies

- 4 weeks post injury cervical spine x-rays were obtained which showed some mild C5/6 degenerative changes and decreased cervical lordosis
- 6 weeks post injury cervical spine MRI scan was obtained, which showed moderate spondylosis, disc desiccation and a 3 mm right paracentral disc protrusion at C5/6
- 8 weeks post injury an upper extremity EMG was obtained and showed only some insertional activity in the cervical paraspinal muscles

Additional Treatment

- 12 weeks post injury she saw a neurosurgeon. She continued to report pain in her neck, right shoulder girdle, arm and index finger and thumb. Her upper extremity DTRs and strength were normal. Surgery (C5/6 ACDF) and cervical epidural injections were discussed. The patient declined both
- 14 weeks post injury her TD referred her to a chiropractor who performed manipulation and a cervical mobilization exercise, progressing into neck and scapular strengthening exercises. She was seen for 16 visits over 10 weeks with improvement in her symptoms, range of motion, functional activities and return to full time work, with restrictions
- 24 weeks post injury, the chiropractor's records at discharge documented pain scale 4/10, slightly decreased cervical flexion, 50 degrees right lateral flexion and right rotation with right neck pain. Her upper extremity DTRs and strength were normal and bilaterally symmetric. The notes also show that she continued to report intermittent pain in her right scapula, arm and occasionally to the right forearm, provoked with neck flexion activities like reading and working on a computer and that she was able to significantly relieve these with McKenzie exercises
- 26 weeks post injury (2 weeks after being released by the DC), she saw her TD's PA for the purpose of being released to full duty. The PA did not document any specific physical exam findings and she was released to "PRN status"

DD Medical History (40 weeks post injury)

- 3/10 pain scale
- Chief complaint - neck pain, with intermittent pain in the right shoulder and arm
- Pain drawing shows an "ache" sensation in the right neck, shoulder, arm, forearm consistent with the right C6 nerve root.
- Working full duty without restrictions since seeing PA at 26 weeks post injury

DD Physical Exam (40 weeks post injury)

- No scars on the neck or visible deformity, scoliosis, or kyphosis
- Ambulates with normal gait. No scars on the back or trunk.
- There is hypertonicity and moderate tenderness over the right cervical paraspinal muscles. There is no upper extremity atrophy. Upper extremity deep tendon reflexes, sensation and strength are normal

- Cervical flexion 50 degrees with mild right neck pain; extension 55 degrees with mild right neck pain; right lateral flexion 40 degrees with right neck pain; left lateral flexion 45 degrees no pain; right rotation 65 degrees with right neck pain, and left rotation 80 degrees no pain
- Spurling's test produces some right posterior neck pain, radiating to the right medial scapula

Has MMI been reached? If so, on what date?

If the IE has reached MMI, as of the MMI date, what is the IR?

Example – MMI/IR Upper Extremity Case 1

History of Injury

A 35 year old carpenter was using a drill when the bit caught on a piece of metal, causing the drill to twist his right hand and wrist, pinning his hand against a wall. He stopped work that day, but continued to have pain in his right wrist. He was seen at an urgent care clinic that evening.

Treatment History

- Initial treatment consisted of RICE and an NSAID
- He returned to work two days later on light duty and wearing a wrist splint

Imaging

X-ray of the right wrist on the day of the injury showed some soft tissue swelling about the dorsal wrist without fracture or dislocation.

Additional Treatment

- At 6 weeks post injury the IE completed 9 visits of physical therapy with some improvement in his swelling, ROM and ability to lift objects. The hand written PT notes are illegible
- At 8 weeks post injury he saw he treating doctor who documented "full wrist ROM and strength. Continue full duty work and return as needed."

DD Medical History (20 weeks post injury)

- IE has no more swelling and returned to work without restrictions 6 weeks post injury
- He complains of some aching in his wrist with lifting heavy objects and prolonged use of power tools

DD Physical Exam (20 weeks post injury)

Wrist range of motion: flexion 57 degrees, extension 57 degrees, Radial deviation 12 degrees, ulnar deviation 8 degrees

Has MMI been reached?

Yes.

If so, on what date?

8 weeks post injury when he saw his treating doctor.

If the IE has reached MMI, as of the MMI date, what is the IR?

UE Case 1 ANSWER: 4% whole-person impairment

IE's wrist impairment should be determined using Section 3.1h, Abnormal Motion of Wrist (pages 35-38) as no other impairments were identified (ie, amputation, sensory loss, motor loss, vascular, "other disorders," etc.) Wrist measurements for flexion, extension, and radial and ulnar deviation should be rounded to the nearest 10 degrees per page 36 and 37. Using Figure 26 on page 36, 57 degrees of flexion is rounded to the nearest 10 degrees, which is 60 degrees and equals 0% impairment. 57 degrees of extension is rounded to the nearest 10 degrees, which is 60 degrees and equals 0% impairment. Radial deviation of 12 degrees rounds to 10 degrees and using Figure 29 on page 38, 10 degrees equals 2% impairment. Ulnar deviation of 8 rounds to 10 degrees and ulnar deviation of 10 degrees using Figure 29 on page 38 equals 4% impairment. 0% + 0% + 2% + 4% equals 6% upper extremity (UE). Using Table 3 on page 20, 6% UE impairment of the wrist equals 4% whole-person impairment.

PRE-COURSE WORK – MMI/IR Upper Extremity Case 2

History of Injury

A 53 year old teacher slipped and fell, landing on her dominant right shoulder 10 months ago.

Treatment History

- She saw an occupational medicine physician and was found to have significant tenderness over the right AC joint and reduced right shoulder ROM
- Initial treatment included the use of a sling and NSAIDs, followed by 10 visits of physical therapy over 4 weeks
- She was able to return to work with restrictions
- Her symptoms persisted and a right shoulder MRI scan was obtained

Imaging

- X-rays performed at the initial office visit revealed a Type III acromion but no fracture or dislocation
- 6 weeks post injury a right shoulder MRI scan revealed partial thickness supraspinatus tear, increased signal in the subacromial bursa, a Type III acromion, degenerative changes of the AC joint, but no evidence of labral tear

Additional Treatment

- 8 weeks post injury she saw an orthopedic surgeon, who performed 2 separate subacromial corticosteroid injections, with concurrent continuation of her home exercise program
- 16 weeks post injury, she underwent arthroscopic rotator cuff repair with an acromioplasty. The operative report also mentions partial resection of the inferior aspect of the distal clavicle
- She underwent a course of 34 visits post-operative physical therapy, over 4 months, with improvement in her range of motion and strength
- 9 months post injury she was released to return to work without restrictions

- She continues her home exercises independently and has been discharged by the orthopedic surgeon

DD Medical History (10 months post injury)

- Chief complaint right shoulder pain with overhead activities
- No reported prior history of evaluation or treatment of shoulder condition prior to this work injury

DD Physical Exam (10 months post injury)

- Healed surgical scars consistent with right shoulder arthroscopy
- Active goniometric right shoulder ROM as follows: flexion 150 degrees, extension 40 degrees, abduction 140 degrees, adduction 40 degrees, internal rotation 30 degrees and external rotation 40 degrees
- Left shoulder ROM is full
- 5/5 strength of his bilateral upper extremities, no atrophy
- Sensation and DTRs are normal
- Upper extremity pulses are normal, no swelling

Has MMI been reached? If so, on what date?

If the IE has reached MMI, as of the MMI date, what is the IR?

Example - Lower Extremity Case 1

History of Injury

IE is a 27 year old male delivery truck driver who tripped over a package at work, twisting his left knee. He felt a sharp pain initially, with symptoms of locking and catching in the left knee persisting.

Treatment History

- Initially treated conservatively with rest, ice, compression and elevation
- Arthroscopic partial medial meniscectomy was performed 6 weeks post injury

Imaging

MRI scan done 5 weeks after the injury revealed a tear of the medical meniscus.

Additional Treatment

- 12 weeks post injury IE completed 12 visits of PT over 6 weeks, following surgery. The PT discharge notes show he had RTW full duty without complication, 1-2/10 pain scale, 0 degrees of extension and 137 degrees of flexion. He was performing 1/2 squats, resisted hamstring and quadriceps exercises.
- 13 week treating doctor follow-up stated – “Doing well, has progressed with PT, working full duty without problems, return if needed.”

DD Medical History

- IE has returned to work without restrictions 10 weeks post injury while attending physical therapy
- He has some mild morning stiffness in his knee and sometimes has aching after prolonged standing
- He states he no longer has any problems with swelling, locking or buckling since his surgery

DD Physical Exam

- Gait was normal, left thigh circumference (measured 10 cm above the patella with the knee fully extended and the muscles relaxed) was 6 mm smaller than the right
- Quadriceps and hamstrings were of normal strength, and range of motion was from 0 degrees of extension to 140 degrees of flexion

Has MMI been reached?

Yes

If so, on what date?

At 12 weeks post injury at PT discharge

As of the MMI date, what is the IR?

LE Case 1 ANSWER: 1% whole-person impairment

IE's Knee impairment is rated per the Diagnosis-based Estimates from Table 64 on page 85 of the AMA Guides 4th Edition. The IE's condition includes leg muscle atrophy, but there is no associated impairment for less than 1-cm difference in circumference per Section 3.2c on page 77. IE's range of motion is normal and therefore there is no impairment for motion deficits per Table 41 on page 78. The impairment for the diagnosis based estimate per Table 64 on page 85, partial medial meniscectomy, which equals 1% whole-person impairment.

PRE-COURSE WORK - Lower Extremity Case 2

History of Injury

A 39 year-old insurance agent injured his left knee while playing softball at the company picnic when he stepped into a small hole in the outfield while running to catch a ball, twisting his knee. He reported hearing a "pop" and fell to the ground.

Treatment History

- The day of his injury he was seen at an urgent care center and was diagnosed with a left knee sprain, with a suspected ACL tear; he was given crutches, home care instructions and referred to an orthopedic surgeon
- 2 weeks post injury he saw an orthopedic surgeon, who found him to be on crutches, have significant knee effusion, decreased ROM and a positive Lachman's sign and significant valgus instability

- 3 weeks post injury a right knee MRI scan was obtained showing grade III tears of the anterior cruciate ligament (ACL) and lateral collateral ligament (MCL), and a tear of the posterior horn of the lateral meniscus
- The orthopedic surgeon recommended initial non-operative management including a hinged brace, continuing home care and a trial of physical therapy for 6 weeks, focusing on ROM, and progression of exercises
- 8 weeks post injury he completed 12 visits of physical therapy with some improvement of symptoms, activity tolerance, and valgus instability, however he continued to experience episodes of his knee "giving out"
- 12 weeks post injury he underwent an arthroscopic ACL repair and partial lateral meniscectomy
- 40 weeks post injury he completed 24 visits of outpatient post-op active rehabilitation concurrent to his gym and home exercise program

DD Medical History (16 months post injury)

- Runner/triathlete prior to injury
- He continues to perform his home and gym exercise program 3-5 days per week; he states he is exercising 1-2 hours per day at least 3-4 times per week, riding the stationary and road bike for 30-45 minutes, running 3-4 miles 2-3 times per week, swimming 3 times per week and performing a variety of resistance exercises
- Chief complaint mild left knee pain. Ability to run 3-4 miles and bike 20 mile without increased left knee pain, swelling or limp
- Working full duty (sedentary capacity)

DD Physical Exam

- VITALS: Height 70 inches, Weight 155 lbs, BP 118/72 Pulse 54, Respiration 12
- Fit, athletic build
- Well healed surgical scars consistent with right knee arthroscopy and patellar graft harvesting
- No knee effusion
- Normal gait
- Mild laxity of the ACL with Lachman's and anterior drawer testing.
- No varus or valgus instability
- Full knee extension and 120 degrees of flexion
- 5/5 quad and hamstring strength
- There is 1.0 cm of right quadriceps atrophy

Has MMI been reached? If so, on what date?

If the IE has reached MMI, as of the MMI date, what is the IR?