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Notice of Independent Review Decision **AMENDED DECISION**

DATE: November 15, 2012; **AMENDED November 15, 2012**

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

72148 MRI Spinal Canal Without Dye Lumbar Spine, 1 Unit; DOS: 05/25/12;
CORRECTED DOS: 05/26/12

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:

This physician is Board Certified by the American Board of Pain Management and Occupational Medicine with over 34 years of experience.

REVIEW OUTCOME:

Upon independent review, the reviewer finds that the previous adverse determination/adverse determinations should be:

Overturned (Disagree)

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

INFORMATION PROVIDED TO THE IRO FOR REVIEW:

06/15/11: Workers' Compensation Records
06/15/11: Consultation
06/16/11: Employers First Report of Injury or illness
06/17/11: Followup Visit
06/17/11: Bona Fide Job Offer – Temporary Alternative Duty (TAD)
06/21/11: Bona Fide Job Offer – Temporary Alternative Duty (TAD)
06/22/11: Progress Note
06/28/11: Bona Fide Job Offer – Temporary Alternative Duty (TAD)
06/28/11: Progress Note
07/06/11: Progress Note
07/22/11: Initial Therapy Visit
07/22/11, 08/05/11: Progress Note
08/05/11: Therapy Notes
02/20/12: Emergency Room Discharge Instructions
05/02/12: Progress Note

05/21/12: Initial Consultation
05/23/12: Followup Visit
05/26/12: MRI L-Spine W/O Contrast report
06/01/12: Followup Visit
06/19/12: Office Visit
08/29/12: Reconsideration Request and Claim Form
07/10/12: UR performed
09/17/12: UR performed
11/01/12: Independent Review Organization Summary from

PATIENT CLINICAL HISTORY [SUMMARY]:

The claimant is a female who injured her low back at work when she slipped and fell on water in the bathroom on xx/xx/xx.

06/15/11: The claimant was evaluated for complaint of back pain and right ankle pain secondary to a work-related injury which occurred on 06/13/11. On physical exam of the lumbar spine, she had negative bilateral straight leg raise. No CVA tenderness. No ecchymosis. No erythema. No external trauma. No palpable spasm. No spinous tenderness. Normal gait. Reflexes symmetric. Normal sensation. FROM with pain on extension: 30 degrees with pain and on flexion 45 degrees with pain. Mild lumbar tenderness. Lumbar spine series was negative. ASSESSMENT: Lumbar strain. PLAN: Celebrex. Gel ice pack p.r.n. Modified work with no lifting over 20 pounds.

06/13/11: The claimant was evaluated for followup of her work-related injury. She reported improvement of back pain. The record notes, "back pain now gone." On physical exam of the lumbar spine, she was nontender to palpation. She had full ROM without pain. She had normal sensation and negative bilateral leg raise. The thoracic spine demonstrated no tenderness with FROM. Motor testing was intact. Sensation was intact. Reflexes were normal. ASSESSMENT: Lumbar strain, improved. PLAN: Limit standing, sitting 75% of time. Continue Celebrex p.r.n. pain.

06/22/11: The claimant was evaluated. It was noted that her lumbar problem had resolved. It was noted that she was improving until she twisted her right ankle when she slipped on wet floor in the pharmacy on 06/21/12. It was noted that her pain was located on the lateral aspect of the right ankle only. ASSESSMENT: Lumbar strain, resolved. PLAN: Await overread report of the lumbar spine x-rays obtained on 06/15/11.

06/28/11: The claimant was reevaluated. It was noted that her only pain was located in the right ankle, lateral aspect. On physical exam of the lumbar spine, she was in no apparent distress. She had normal heel and toe gaits. SLR was negative bilaterally, both seated and supine. Reflexes were normal. ROM was within normal limits. Sensation was within normal limits. Palpation was negative for pain. Waddell's tests were negative. The overread reports of the lumbar spine x-rays performed on 06/15/11 revealed multilevel degenerative disc disease, especially at L5-S1 and spondylitic change of the lumbar spine. ASSESSMENT:

Lumbar strain, resolved. PLAN: Discontinue Celebrex. Take Tylenol p.r.n. pain. Return to work with no restrictions.

07/06/11: The claimant was evaluated for complaints of getting worse. She stated that she was getting better until she returned to regular duty. She complained of low back pain with pain radiating down the anterior thigh. The pain was worse with prolonged standing and walking. She rated the pain at 6/10. On physical exam, DTRs were equal. Sensation was intact. Motor testing revealed 5/5 strength. Negative SLR. She had no palpable lumbar spasm. Flexion was decreased with pain at end range. ASSESSMENT: Lumbar strain, lumbar pain. PLAN: Patient will be placed on modified activity based on symptoms, clinical findings, history, any appropriate imaging studies and patient's work functions. Physical therapy.

07/22/11: The claimant was evaluated. She complained of low back pain exacerbated by prolonged standing, prolonged walking, and bending. It was noted that she had guarded movements. No deviations noted in gait. Sensation was intact. She had tenderness to palpation at lumbar paraspinal region L2-L5 bilaterally. Lumbar AROM: Flexion 0-80 pain at end range. Extension: 0-20. Lateral flexion left, right: 0-20, 0-20. Rotation left, right: 0-30, 0-30. Myotomes left/right: 5/5 at L2, L3, L4, L5, S1. SLR sitting, supine: Negative. Crossed SLR: negative. ASSESSMENT: The patient exam is consistent with the medical diagnosis of lumbar strain. Impairment list: AROM, pain, muscle performance. Prognosis: Therapy is indicated for the above noted practice pattern and impairments. Duration and frequency: 3 times per week for 2 weeks.

07/22/11: The claimant was reevaluated for a recheck of her injury. She felt that the pattern of symptoms was no better. She rated her pain in her back as 6/10. On physical exam, she had normal DTRs, sensation, and motor exam. Negative bilateral SLR. No palpable spasm in the lumbar area. PLAN: PT. No lifting more than 20 pounds. No pushing or pulling more than 40 pounds. No bending more than 5 times per hour.

08/05/11: The claimant was reevaluated for a recheck of her injury. She felt that her symptoms were worsening. She complained of tightness and pain rated 9/10. Her physical exam was unchanged since 07/22/11. An MRI L-spine was ordered.

08/05/11: The claimant was evaluated. PLAN: Continue therapy per treatment plan.

02/20/12: The claimant was evaluated by the emergency department. It was noted that her exam showed she had sciatica. She was referred. She was given Medrol Dose Pack.

05/02/12: The claimant was evaluated for recheck of her work-related injury which occurred on 06/13/11. It was noted that she felt her pattern of symptoms was worsening. She had been working her regular duty. She had not been taking any medications because she ran out. The pain was located in the right lumbar

region and the right ankle. The lumbar pain radiated to the right leg. It was noted that the lumbar MRI scan ordered on 08/05/11 was never approved or performed. It was noted that she did say she was starting to feel better and was even optimistic and happy as she felt she was ready for regular duty. However, later that same month, she slid on a wet floor and fell again at work landing on her buttocks. She was evaluated and treated by another medical provider. She said that when she fell that time, she injured her back and her tailbone. She was prescribed Vicodin and ibuprofen and slowly improved. Her last visit with the other medical provider was in January or February of 2012. She had since run out of her prescriptions that they gave her. She told that the pain had been slowly increasing over the past few weeks. It was noted that there was a green authorization for treatment form in the patient's chart dated 04/26/12. It was signed by her adjustor and states that the patient's case is being reopened with "us" for the purpose of referring her for an MMI. "Note that patient is checked in today under the 06/13/11 injury and not the fall she had in 8/2011." On physical exam, she had 5/5 strength in bilateral lower extremities. DTRs were normal bilaterally. Gait was normal. She had tenderness to the right side of the back at the level of L2 through L5. Decreased active ROM with forward flexion limited to -60 degrees with pain. Difficulty with heel-to-toe walking (demonstrates good alignment but complains of subjective pain in right lumbar region). Positive SLR on the right at 30 degrees. Negative left leg raise. No CVA tenderness or spinous tenderness. ASSESSMENT: Lumbar strain. Lumbar pain. Sprain/strain right ankle. Contusion of the lumbar region. Fall on same level slipping/tripping. PLAN: Prescription given for Vicodin 5/500 mg 1-2 p.o. q. 6h. p.r.n. severe pain #30 with no refills. Take OTC ibuprofen 200 mg 1-2 tablets q. 6-8h. p.r.n. milder daytime pain. Limit lifting to approximately 20 pounds. Limit pushing/pulling to approximately 40 pounds. Limit bending at waist. Alternate sit/stand/walk as needed. Followup as needed. Referred to physiatrist for MMI.

05/21/12: The claimant was evaluated. It was noted that she had worsening back pain at the time of regular duty activities, so she was again placed on light duty. It was also noted that she had another fall in August 2011 when she slipped and fell onto her buttocks, injuring her tailbone area and was seen by another physician. She was treated with medications and steroid injection. It was noted that she saw them for a couple of months and was released from their care. She stated that she saw a designated doctor for that injury and was placed at MMI with impairment rating of 5%. She then returned to Concentra on 05/02/12. Currently, she complained of continued severe pain in the low back that could radiate down the right lower extremity. She had numbness and tingling essentially in the entire right leg at times. She also had tingling in the toes of the right foot and tingling and numbness at times in the left foot and in the left groin area. She rated her pain level at 8/10 with movement, up to 10/10. She also had some right ankle pain as well. She stated that the couple of sessions of therapy did not help. She did not have any therapy for the second injury in August. She was not doing exercises at home. She stated that she was not instructed in any. She reported a lot of difficulty with prolonged standing. She was working modified duty at work with fair tolerance. On physical exam of the lumbar spine, no swelling, ecchymosis, or deformity was noted. She was mildly tender in the lumbosacral

spine and paraspinals, right side more than left. No muscle spasms or trigger points noted on exam. Lumbar ROM showed forward flexion of 35 degrees, extension 20 degrees, and right and left lateral flexion 25 degrees with discomfort noted. Motor exam was 5/5 in the left lower extremity throughout and 4+/5 in the right lower extremity throughout. Sensation was subjectively decreased in the right anterior thigh. DTRs were 2+ at the patellar and Achilles bilaterally. No clonus was noted. Gait was essentially normal, maybe somewhat slow-paced. She was able to do toe raises. Negative SLR in sitting position to 90 degrees and supination to 70 degrees. Extremities showed no atrophy. **ASSESSMENT:** Lumbosacral strain/sprain. Rule out right lower extremity radiculopathy. Right ankle strain/sprain. **RECOMMENDATION:** Discussed with the patient that I will need to clarify with her adjuster on what exactly they are authorizing her to be seen for, whether this was for an MMI and impairment rating evaluation or if they are opening up treatment to get further studies due to her continued radicular symptoms. We will again contact the adjuster to try and see if we can get the answer regarding this issue. I do not want to proceed with the impairment rating done with that question remaining. In the meantime, she is to continue to remain as active as possible, doing walking exercises. Continue back precautions and proper lifting techniques. Continue modified duty at current restrictions. Given a prescription for Mobic to take once a day with food. We will follow up with the patient in three weeks. At that time, hopefully, we will have an answer regarding the issues as discussed above.

05/23/12: The claimant was reevaluated. She apparently came to the clinic the day before stating that she was unable to go to work. Now, she was stating that she has not gone to work for the last three days with pain level today at 10. It was noted that "we have not yet heard back from the adjuster regarding the issue of her MRI versus MMI issues." tried to explain to her that, in her opinion, she did not see any reason why the claimant could not do light duty, which she had been doing for several months. The claimant then became agitated stating that she would be going to another physician to be treated. She was offered to call her work facility to make sure they were following her restriction including allowing her to change from sit to stand positions periodically, but the claimant, on her own, walked out of the clinic and did not wait to sign any paperwork. placed a call into. She did not receive any answer. Physical exam: Back unchanged. Neurological grossly intact, did not show any problems getting from a sit to stand position with ambulation. **ASSESSMENT:** Lumbosacral strain/sprain. History of right ankle strain/sprain. **RECOMMENDATION:** Patient should continue with her home exercise program. Continue modified duty at current restrictions. Continue current medications as prescribed. At this point, it appears that the patient will be seeking treatment elsewhere. **ADDENDUM:** I did speak with the patient's adjuster, Linda. I discussed with her my visit with the patient today and the fact that the patient had left agitated and not pleased stating she would seek treatment from another physician. Her adjuster asked if an MRI is indicated in her case. I discussed with her that no MRI was done in the patient's case throughout her treatment course. She has had a couple of injuries to her low back, one in August as well as the one we are currently treating for in June. She does report some radicular complaints. In my opinion, an MRI certainly would be warranted in her

case. If that does not show anything significant, then I would anticipate she should be at MMI. If it does show something, then that can be addressed. She states she will go ahead and try and get the MRI authorized. I will go ahead and make the referral for the MRI study and get that done and then follow up either with us or another physician if the patient desires not to return to our clinic. Case manager was okay with this plan and we will move forward. I have requested the MRI today.

05/26/12: MRI L-Spine W/O Contrast report interpreted. IMPRESSION: There is mild loss of disc space height and signal at L4-L5 and there is also disc dehydration at L3-L4 and L2-L3. There is 5-10% spondylolisthesis of L4 relative to L5. There is facet and ligamentum flavum hypertrophy at the L4-L5 level, which is likely the etiology for the spondylolisthesis. In conjunction with the diffuse pseudobulge associated with spondylolisthesis, this creates mild trefoil central spinal stenosis. There is no significant foraminal stenosis. There is annular fissuring at L3-L4. There is no focal disc protrusion. There is no central or foraminal stenosis. The remaining lumbar levels and conus are within normal limits.

06/01/12: The claimant was reevaluated. She stated that overall she felt the same. She rated her pain at 9/10. She was apologetic over her behavior in the last visit. Her MRI report was discussed with her. It was essentially noted to be unremarkable study other than a 5-10 % spondylolisthesis at L4 relative to L5. There was mild disc space height at L4-L5 and disc dehydration at L3-L4 and L2-L3. It was discussed with the claimant that these were very minimal findings, nothing that will require surgical intervention. stated that she would only recommend continue conservative treatment. The claimant stated that she had pain essentially in the morning and also with prolonged sitting, getting up from a sitting position, and sometimes with walking. She noted that she tried to change positions, which did help. had a lengthy discussion with the claimant that in her opinion, her best future treatment option was working on core strengthening, back extensors, abdominals, and generalized strengthening. It was noted that this could be in a work conditioning, work hardening-type setting even up to 4 hours a day for a couple of weeks. The claimant agreed with the recommendations. ASSESSMENT: Lumbosacral strain/sprain. History of right ankle strain/sprain. Mild grade 1 L4-L5 spondylolisthesis. RECOMMENDATION: Continue home exercise program. Refer to Source One for work conditioning. Continue modified duty at current restrictions. Continue current medications as needed. Followup in 3-4 weeks.

06/19/12: The claimant was seen. She complained of low back pain, right ankle pain, and groin pain rated as severe and constant and with numbness. She had tenderness to palpation in the lumbar spine with normal range of motion and normal strength. She stated that she was doing better but the pain had gotten worse over the last week. She had numbness in the right foot. Her records from ER visits were to be requested.

08/29/12: Reconsideration request. "Please reprocess the attached medical bill for reconsideration and send additional reimbursement accordingly. called you on 05/24/12 to check if procedure is a repeat and you stated no so pre-certification is not required for a non-network and also you have approved the service for reasonable and necessary. Although the report shows abnormalities of the spine, the insurance reviewer denied our bill once again for not medically necessary of which a pattern of denial. Our facility meets the requirement to be reimbursed for the service we rendered. Your kind and prompt attention in this matter is very much appreciated."

07/10/12: UR performed. RATIONALE: DOS under review is almost one year out from the DOI. There is a gap in UR activity from the prior 8/2011 non-agreement of MRI until the 05/20/12 request for evaluation of MMI that was agreed to under the claim. 05/02/12 note does not mention intent to proceed with MRI. The consult note is not provided. The note does not document specific neurological deficits or discuss red flags. There is no pre-MRI clinical to support the study under the claim. MRI provided for review documents degenerative pathology. Probable issues of extent. ODG criteria are not met.

09/17/12: UR performed. RATIONALE: Initial review and the medical rationale for the adverse determination were reviewed. Recommend upholding the initial adverse determination. Letter of appeal does not address the issues brought up on initial review. The patient has no clinical findings of radiculopathy. There is no documentation what occupational lumbar pathology was meant to be ruled in or out. Patient did not present for care between 08/05/11 and 05/02/12. There are no clinical or medical history findings of red flags. ODG criteria for MR imaging were not met.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS, AND CONCLUSIONS USED TO SUPPORT THE DECISION:

The previous adverse decisions are overturned. The claimant is a female who injured her low back at work when she slipped and fell on water in the bathroom on xx/xx/xx. She gradually improved then fell again on 06/21/11, and when she was returned to regular duty in July 2011, her pain level increased and became intolerable. Lower level care for the lumbar spine and ankle were unsuccessful at returning this claimant to full duty, and for this reason, she was referred for consultation almost one year later in May of 2012. His consultation note documents that she had "signs of radiculopathy" and "has not had imaging after a year long injury". For this reason, he requested MRI imaging of the lumbar spine to establish whether there was pathology of the lumbar spine to explain her signs and symptoms and to establish whether there might be a diagnosis that had not been identified to date that might explain her difficulty with resumption of normal activities. The MRI identified the following findings on 05/26/12: MRI L-Spine W/O Contrast report interpreted by Ellis Roberson, IMPRESSION: There is mild loss of disc space height and signal at L4-L5 and there is also disc dehydration at L3-L4 and L2-L3. There is 5-10% spondylolisthesis of L4 relative to L5. There is facet and ligamentum flavum hypertrophy at the L4-L5 level, which is likely the etiology

for the spondylolisthesis. In conjunction with the diffuse pseudobulge associated with spondylolisthesis, this creates mild trefoil central spinal stenosis. There is no significant foraminal stenosis. There is annular fissuring at L3-L4. There is no focal disc protrusion. There is no central or foraminal stenosis. The remaining lumbar levels and conus are within normal limits. The MRI imaging study allowed the specialist and the claimant to make a decision with respect to follow up clinical care and return to work issues.

Rationale:

ODG /Lumbar/MRI Indications for MRI include: “There is support for MRI, depending on symptoms and signs, to rule out serious pathology such as tumor, infection, fracture, and cauda equina syndrome. Patients with severe or progressive neurologic deficits from lumbar disc herniation, or subjects with lumbar radiculopathy who do not respond to initial appropriate conservative care, are also candidates for lumbar MRI to evaluate potential for spinal interventions including injections or surgery. For unequivocal evidence of radiculopathy, see AMA Guides. ([Andersson, 2000](#)) See also [ACR Appropriateness Criteria](#)™. See also [Standing MRI](#)

Clinical records document the symptoms and clinical uncertainty of radiculopathy in this claimant. The record also documents the uncertainty of a diagnosis requiring surgery which had not been determined ever throughout the course of this one-year-old injury. Therefore, the claimant does meet the criteria for medical necessity and the request for 72148 MRI Spinal Canal Without Dye Lumbar Spine, 1 Unit; DOS: 05/25/12 is warranted. **CORRECTED DOS: 05/26/12.**

ODG:

<p>MRI's (magnetic resonance imaging)</p>	<p>Recommended for indications below. MRI's are test of choice for patients with prior back surgery, but for uncomplicated low back pain, with radiculopathy, not recommended until after at least one month conservative therapy, sooner if severe or progressive neurologic deficit. Repeat MRI is not routinely recommended, and should be reserved for a significant change in symptoms and/or findings suggestive of significant pathology (eg, tumor, infection, fracture, neurocompression, recurrent disc herniation). (Bigos, 1999) (Mullin, 2000) (ACR, 2000) (AAN, 1994) (Aetna, 2004) (Airaksinen, 2006) (Chou, 2007) Magnetic resonance imaging has also become the mainstay in the evaluation of myelopathy. An important limitation of magnetic resonance imaging in the diagnosis of myelopathy is its high sensitivity. The ease with which the study depicts expansion and compression of the spinal cord in the myelopathic patient may lead to false positive examinations and inappropriately aggressive therapy if findings are interpreted incorrectly. (Seidenwurm, 2000) There is controversy over whether they result in higher costs compared to X-rays including all the treatment that continues after the more sensitive MRI reveals the usual insignificant disc bulges and herniations. (Jarvik-JAMA, 2003) In addition, the sensitivities of the only significant MRI parameters, disc height narrowing and annular tears, are poor, and these findings alone are of limited clinical importance. (Videman, 2003) Imaging studies are used most practically as confirmation studies once a working diagnosis is determined. MRI, although excellent at defining tumor, infection, and nerve compression, can be too sensitive with regard to degenerative disease findings and commonly displays pathology that is not responsible for the patient's symptoms. With low back pain, clinical judgment begins and ends with an understanding of a patient's life and circumstances as much as with their specific spinal pathology. (Carragee, 2004)</p>
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Diagnostic imaging of the spine is associated with a high rate of abnormal findings in asymptomatic individuals. Herniated disk is found on magnetic resonance imaging in 9% to 76% of asymptomatic patients; bulging disks, in 20% to 81%; and degenerative disks, in 46% to 93%. ([Kinkade, 2007](#)) Baseline MRI findings do not predict future low back pain. ([Borenstein, 2001](#)) MRI findings may be preexisting. Many MRI findings (loss of disc signal, facet arthrosis, and end plate signal changes) may represent progressive age changes not associated with acute events. ([Carragee, 2006](#)) MRI abnormalities do not predict poor outcomes after conservative care for chronic low back pain patients. ([Kleinstück, 2006](#)) The new ACP/APS guideline as compared to the old AHCPR guideline is more forceful about the need to avoid specialized diagnostic imaging such as magnetic resonance imaging (MRI) without a clear rationale for doing so. ([Shekelle, 2008](#)) A new meta-analysis of randomized trials finds no benefit to routine lumbar imaging (radiography, MRI, or CT) for low back pain without indications of serious underlying conditions, and recommends that clinicians should refrain from routine, immediate lumbar imaging in these patients. ([Chou-Lancet, 2009](#)) Despite guidelines recommending parsimonious imaging, use of lumbar MRI increased by 307% during a recent 12-year interval. When judged against guidelines, one-third to two-thirds of spinal computed tomography imaging and MRI may be inappropriate. ([Devo, 2009](#)) As an alternative to MRI, a pain assessment tool named Standardized Evaluation of Pain (StEP), with six interview questions and ten physical tests, identified patients with radicular pain with high sensitivity (92%) and specificity (97%). The diagnostic accuracy of StEP exceeded that of a dedicated screening tool for neuropathic pain and spinal magnetic resonance imaging. ([Scholz, 2009](#)) Clinical quality-based incentives are associated with less advanced imaging, whereas satisfaction measures are associated with more rapid and advanced imaging, leading Richard Deyo, in the Archives of Internal Medicine to call the fascination with lumbar spine imaging an idolatry. ([Pham, 2009](#)) Primary care physicians are making a significant amount of inappropriate referrals for CT and MRI, according to new research published in the *Journal of the American College of Radiology*. There were high rates of inappropriate examinations for spinal CTs (53%), and for spinal MRIs (35%), including lumbar spine MRI for acute back pain without conservative therapy. ([Lehnert, 2010](#)) Degenerative changes in the thoracic spine on MRI were observed in approximately half of the subjects with no symptoms in this study. ([Matsumoto, 2010](#)) This large case series concluded that iatrogenic effects of early MRI are worse disability and increased medical costs and surgery, unrelated to severity. ([Webster, 2010](#)) Routine imaging for low back pain is not beneficial and may even be harmful, according to new guidelines from the American College of Physicians. Imaging is indicated only if they have severe progressive neurologic impairments or signs or symptoms indicating a serious or specific underlying condition, or if they are candidates for invasive interventions. Immediate imaging is recommended for patients with major risk factors for cancer, spinal infection, cauda equina syndrome, or severe or progressive neurologic deficits. Imaging after a trial of treatment is recommended for patients who have minor risk factors for cancer, inflammatory back disease, vertebral compression fracture, radiculopathy, or symptomatic spinal stenosis. Subsequent imaging should be based on new symptoms or changes in current symptoms. ([Chou, 2011](#)) The National Physicians Alliance compiled a "top 5" list of procedures in primary care that do little if anything to improve outcomes but excel at wasting limited healthcare dollars, and the list included routinely ordering diagnostic imaging for patients with low back pain, but with no warning flags, such as severe or progressive neurologic deficits, within the first 6 weeks. ([Aguilar, 2011](#)) Owning MRI equipment is a strongly correlated with patients receiving MRI scans, and having an MRI scan increases the probability of having surgery by 34%. ([Shreibati, 2011](#)) A considerable proportion of patients may be classified incorrectly by MRI for lumbar disc herniation, or for spinal stenosis. Pooled analysis resulted in a summary estimate of sensitivity of 75% and specificity of 77% for disc herniation. ([Wassenaar, 2011](#)) ([Sigmondsson, 2011](#)) Accurate terms are particularly important for classification of lumbar disc pathology

from imaging. ([Fardon, 2001](#)) Among workers with LBP, early MRI is not associated with better health outcomes and is associated with increased likelihood of disability and its duration. ([Graves, 2012](#)) There is support for MRI, depending on symptoms and signs, to rule out serious pathology such as tumor, infection, fracture, and cauda equina syndrome. Patients with severe or progressive neurologic deficits from lumbar disc herniation, or subjects with lumbar radiculopathy who do not respond to initial appropriate conservative care, are also candidates for lumbar MRI to evaluate potential for spinal interventions including injections or surgery. For unequivocal evidence of radiculopathy, see AMA Guides. ([Andersson, 2000](#)) See also [ACR Appropriateness Criteria](#)TM. See also [Standing MRI](#).

Indications for imaging -- Magnetic resonance imaging:

- Thoracic spine trauma: with neurological deficit
- Lumbar spine trauma: trauma, neurological deficit
- Lumbar spine trauma: seat belt (chance) fracture (If focal, radicular findings or other neurologic deficit)
- Uncomplicated low back pain, suspicion of cancer, infection, other “red flags”
- Uncomplicated low back pain, with radiculopathy, after at least 1 month conservative therapy, sooner if severe or progressive neurologic deficit.
- Uncomplicated low back pain, prior lumbar surgery
- Uncomplicated low back pain, cauda equina syndrome
- Myelopathy (neurological deficit related to the spinal cord), traumatic
- Myelopathy, painful
- Myelopathy, sudden onset
- Myelopathy, stepwise progressive
- Myelopathy, slowly progressive
- Myelopathy, infectious disease patient
- Myelopathy, oncology patient

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:

- ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE**
- AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES**
- DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES**
- EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN**
- INTERQUAL CRITERIA**
- MEDICAL JUDGEMENT, CLINICAL EXPERIENCE, AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS**
- MERCY CENTER CONSENSUS CONFERENCE GUIDELINES**
- MILLIMAN CARE GUIDELINES**
- ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**
- PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR**
- TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS**
- TEXAS TACADA GUIDELINES**
- TMF SCREENING CRITERIA MANUAL**
- PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)**
- OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)**