**Maturus Software Technologies Corporation**
**DBA Matutech, Inc.**
**881 Rock Street**
**New Braunfels, Texas 78130**
**Phone: 800-929-9078**
**Fax: 800-570-9544**

**March 23, 2018**
**IRO CASE #:** XXXXXX

**DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:**
Lumbar epidural steroid injection (ESI) at L5-S1, under fluoroscopy, with IV sedation. The patient does have numbness and annular disc tear. Due to anxiety, will need anesthesia

**A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:**
American Board of Physical Medicine & Rehabilitation
American Board of Pain Medicine

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

X Overturned (Disagree)

Medical documentation **supports** the medical necessity of the health care services in dispute.

**Official Disability Guidelines criteria was used for the denials**

**PATIENT CLINICAL HISTORY [SUMMARY]:**
The patient is a XX who was injured on XXXX, when XX reached for XX. XX noted a sudden tug in XX mid-thoracic and back area.

On XXXX, XX, evaluated the patient at XX. The diagnoses of thoracic spine herniated disc without radiculopathy and thoracic muscle sprain were established. XX ordered physical therapy (PT).

From XXXX, through XXXX, the patient attended XX sessions of PT at XX. The diagnoses were other intervertebral disc displacement of the lumbar spine, muscle weakness and muscle spasm of the back.

From XXXX, through XXXX, the patient attended XX sessions of PT at XX. The diagnoses were pain in the thoracic spine, low back pain and sprain of ligaments of the thoracic spine.

On XXXX, a magnetic resonance imaging (MRI) of the lumbar spine was completed at XX. The history was notable for low back pain and failed response to XX medical guided conservative care. The study showed a small L5-S1 left paracentral disc protrusion with a posterior annular tear. There were mild L3-L4 and L4-L5 and minimal L2-L3 disc bulges. There was mild degenerative disc disease (DDD) and articular facet arthropathy of the lumbar spine.

On XXXX, the patient was evaluated at XX for a multidisciplinary work hardening evaluation. On XXXX, a reassessment was done and additional work hardening sessions were recommended.

On XXXX, XX, evaluated the patient for persistent mid-back discomfort. The patient had finished XX of work hardening

program (WHP) with transient benefit. The pain was sharp in quality, intermittent, worse with prolonged sitting or with sleeping, improved with walking on XX treadmill. The pain was severe and was rated at 5/10. Tramadol and Flexeril provided some relief. On exam, the gait was within normal limits. The strength was 5/5 in bilateral lower extremities. The sensation and reflexes were intact and symmetric in the lower extremities. On exam, the lumbar range of motion (ROM) was normal in flexion, extension and lateral bending. There was concordant tenderness at the spinous process at approximately T11. The sitting SLR was normal bilaterally. The hip ROM exam was unremarkable. XX diagnosed thoracic pain, thoracic sprain and low back pain. An MRI of the thoracic and lumbar spine was ordered.

On XXXX, an MRI of the thoracic spine was completed at XX. The study showed mild scoliosis and degenerative spondylosis of the thoracic spine. There was no evidence of fracture or disc herniation. There were type 2 Modic endplate changes with minimal enhancement of the inferior endplate of T8.

On XXXX, an MRI of the lumbar spine was completed at XX. The study showed mild degenerative disc disease without evidence of significant central canal or neural foraminal stenosis. There was bilateral mild neural foraminal stenosis at L4-L5. There was a small posterior annular tear at L5-S1.

On XXXX, XX, performed a History and Physical. The patient reported continued sudden sharp back pain that was debilitating. The pain was at the juncture of the thoracic and lumbar spine. Forward flexion or extension caused the pain to come on at any time. XX did not have radiating pain to other areas. XX had completed his functional restorative program (FRP). On exam, XX noted the patient got up from a seated position in a very guarded way. XX had discomfort to palpation at approximately T12-L1 in the paraspinal muscles. XX was concerned about showing XX ability to flex or extend because of the sudden acute pain that XX experienced. XX diagnosed apparently unstable vertebra on or about T12. The patient was referred for a spine surgery consultation.

On XXXX, XX, performed a peer review and opined the patient sustained a grade I thoracolumbar sprain/strain. The MRI findings were not causally related to the original work injury but were incidental in nature. The findings represented progression of pre-existing, ordinary disease of life. XX could not attribute the continued mid/low back pain to the work injury from XX prior. On XXXX, XX provided an addendum and opined that the new diagnosis was not related to the XXXX, compensable injury.

On XXXX, XX, evaluated the patient in a follow-up visit. On exam, there was ongoing sensory loss and dysesthesia into XX chest wall proximate to the T8 dermatome coming around the xiphisternum area. XX recommended an ESI at the T8-T9 level and ordered a computerized tomography (CT) myelogram with post myelogram standing flexion and extension x-rays.

On XXXX, XX diagnosed thoracic back pain with instability and thoracolumbar strain. Medication support with tramadol, Flexeril, gabapentin, and temazepam was recommended.

On XXXX, the patient underwent a CT myelogram of the thoracic spine. The study revealed a 2 mm right paracentral disc protrusion at T7-T8, which mildly impinged upon the thecal sac and mildly narrowed the right lateral recess. There was a 2 mm disc bulge at the T8-T9 which mildly impinged upon the thecal sac and mildly narrowed the foramina and lateral recesses. There was mild degenerative spondylosis at T4-T5, T5-T6, T8-T9 and T11-T12.

On XXXX, lumbar myelogram and lumbosacral x-rays showed mild thoracic spine scoliosis and mild degenerative spondylosis at T4-T5, T6-T7, T8-T9 and T11-T12.

On XXXX, XX noted central and even interspinous pain on the exam. This location was not as lateral as it had seemed at the previous office visits. XX diagnosed paraspinous pain syndrome and recommended repeat blocks.

On XXXX, XX refilled tramadol, Flexeril, gabapentin and temazepam.

On XXXX, XX, performed an initial evaluation of the mid-thoracic pain. The pain was rated between 5-8/10. The pain

was worse with coughing, deep knee bending and sudden movements of flexion. On exam, the patient walked with an antalgic and a restricted physiologic gait. There was exquisite tenderness at the T7-T8, and T8-T9 interspace exacerbated with flexion and mild radicular symptoms to the left lateral chest wall. The pinprick sensation was minimally diminished in the T8-T9 distribution as well. The SLR was 90 degrees bilaterally without sciatic stretch signs. There was no sciatic notch tenderness. No ankle clonus was elicited. Trigger points were noted through the thoracolumbar spine were noted with jump signs elicited. XX diagnosed chronic thoracic back pain syndrome associated with work injury sprain/strain, protruding thoracic disc with thoracic radiculopathy due to protruding disc at T7-T8 and T8-T9 having failed conservative rehabilitative medical treatment options., secondary myofascial pain syndrome in an otherwise healthy well-built formally XX. XX recommended thoracic ESI.

On XXXX, XX administered thoracic ESI under fluoroscopy.

In a follow-up visit on XXXX, the patient reported improvement in XX thoracic back pain. XX had full ROM, minimal tenderness and some tenderness at the T7-T8, particularly with flexion. XX was 70% improved. The plan was to proceed with the second injection. XX noted the patient had lumbar pain which occasionally radiated into XX left buttock and leg.

On XXXX, XX noted the patient had 70% relief with the first thoracic ESI with decreased use of medication and returned to work. The patient had moderate thoracic intraspinal tenderness again at the T7-T8 and T8-T9 with trigger points. XX had decreased ROM. XX had mildly decreased pinprick in the T7 distribution across XX left thoracic wall. XX recommended second thoracic procedure utilizing an epidural catheter.

On XXXX, XX performed thoracic ESI.

On XXXX, the patient reported complete resolution of XX upper thoracic back pain complaints. XX now reported lower lumbar pain that was associated with lumbar disc disruption, herniated disc at L5-S1. The pain was into the left buttock and leg which was now mostly problematic. The recommendation was to withhold second thoracic epidural block and consider a lumbar epidural blockade in the future. The patient was prescribed gabapentin 400 mg t.i.d. and tramadol p.r.n. On exam, the patient had moderate lumbar interspinous tenderness, pain with flexion, positive SLR on the left and left sciatic notch tenderness.

On XXXX, the patient underwent an Initial Rehab Evaluation at XX. On exam, there was interspinous tenderness on palpation of the thoracic and lumbar spine between T8-L5-S1. The SLR was positive on the left at 45 degrees. The Kemp's test was negative. PT XX was recommended.

On XXXX, the patient was seen again by XX in a follow-up visit. The patient stated that XX thoracic area pain was better, but XX back, buttock and leg pain below the level of the knee at the L5-S1 continued to be problematic. XX had both left and right leg pain. XX had positive SLR on the left at 60 degrees with contralateral SLR on the right at 70 degrees. There was moderate left greater than the right sciatic notch tenderness aggravated with coughing, sneezing, lifting and bending. XX medicines had stabilized to include gabapentin, trazodone, and Ultram. XX recommended lumbar epidural blockade because of moderate lumbar interspinous tenderness with a positive SLR and decreased pinprick sensation.

On XXXX, XX performed a follow-up evaluation. The patient reported a successful ESI with excellent pain relief. The patient reported XX pain management physician recommended that XX discontinue all work, even light duty, so as "not to mess up the significant beneficial result until after a second injection." In theory, then, the patient could and XX did start a course of PT in XX fully resolved status only to have the unhappy experience of a recurrence. XX felt that this was related to certain exercises that XX was attempting. XX continued to work in a light duty capacity. XX also reported radicular symptoms in XX right leg that would seem to be either L5 or S1, but these symptoms were secondary to XX thoracic radiculopathy. On exam, there was no physical finding (reflex change) to identify which nerve was irritated. The diagnoses were lumbar radiculitis, recurrent thoracic radiculitis with additional treatment now needed to recover lost benefit. The plan was to proceed with the second thoracic injection. XX ordered an electromyography (EMG) of the right leg to confirm/exclude root irritation.

On XXXX, XX was notified that the request for an initial lumbar ESI at L5-S1 x1, #1 in XXXX and anesthesia for the injection was denied based on the following rationale: *"Now XX with history of occupational claim on XXXX. Request is submitted for diagnosis of intervertebral disc disorders with myelopathy, thoracolumbar region. Records document at least 2 prior ESIs approved for thoracic region with last approved XXXX. There is also documentation of approval of XX of work hardening in XXXX. The XXXX note documents thoracic and back pain is better. Buttock and leg pain associated with L5-S1 herniated disc continues to be problematic. There is positive left straight leg raise at 60 and contralateral positive straight leg raise (SLR) on right at 70 and moderate Left > Right sciatic notch tenderness. Meds have stabilized to include gabapentin 400 three times a day, trazodone 50 mg at night and Ultram as needed. There is reported decreased pinprick consistent with disorder. The XXXX note documents complete resolution of upper thoracic back pain with documentation of plan for holiday from second thoracic epidural steroid injection (ESI). Medication use has come down to gabapentin 400 three times a day and as needed tramadol. Mainstay is NSAID support. Currently lumbar pain into buttock and leg from herniated disc L5-S1 is reportedly more problematic. There is reported left SLR not described and left sciatic notch tenderness. The XXXX T7-8 and T8-9 thoracic ESI. The XXXX note documents 70% relief with first thoracic ESI with decreased use of medication and return to work (But drug screen XXXX is positive for all prescribed meds. Drug screen XXXX is also positive for codeine and morphine and benzodiazepines.) The XXXX note also reports good response to thoracic ESI and that pain medication has come down. There is report that lumbar pain and occasional radiation into leg has been ´unmasked´. The XXXX note documents T7-8 and T8-9 ESI procedure. The XXXX initial evaluation by XX documents no lumbar or lower extremity radiating complaints. There is NO sciatic notch tenderness and bilateral SLR are negative. Based on review of early serial records there are not complaints or findings below thoracic/lumbar junction. Chief complaint has consistently been thoracic. Initial MRI was done for reported persistent thoracic/lumbar junction pain. It is unclear why a second lumbar MRI was done XX later based on the available records. The XXXX lumbar MRI without contrast impression: Mild degenerative disc disease without evidence of significant canal or neuroforaminal stenosis. Mild bilateral neuroforaminal stenosis L4-5. Small posterior annular tear at L5-S1. (There is no documented comparison to prior study XXXX.) I compared reports. There is no progression and based on available clinical records, findings are incidental. Request is submitted for diagnosis of myelopathy with no evidence to support this diagnosis. There is no neurocompressive pathology on lumbar MRIs. There is no documentation of manual muscle testing or reflexes on exams. There is no evidence of serial complaints or findings in lower lumbar region prior to XXXX note that documents ´unmasked´ symptoms after thoracic ESI. Based on serial records finding on lumbar MRIs were incidental and not clinically relevant. On XXXX, I spoke with XX. I left a message for a peer to peer. At the time of this submission there has been no return call. Recommend denial."*

On XXXX, XX performed a follow-up evaluation. XX stated that the patient had chronic back pain associated with lumbar disc protrusion at L5-S1 with annular disc tear as seen on XX MRI and neurologically with persistent numbness in the L5-S1 distribution. The patient had positive SLR sign. XX had right sciatic notch tenderness. The patient had failed conservative care. The lower lumbar pain was mostly problematic now. The patient walked with an antalgic limp and gait. XX had moderate lumbar interspinous tenderness, positive SLR sign on the right, decreased pinprick sensation in the L5 distribution. XX felt that the criteria for a lumbar ESI had been met. The patient was advised to avoid heavy lifting, bending, or twisting in the meantime. XX recommended resubmitting the request for the procedure with IV sedation.

On XXXX, a letter from XX notified XX that the denial of an initial lumbar ESI at L5-S1, #1 under anesthesia had been upheld. Rationale: "*The provider is requesting an epidural steroid injection in the lumbar spine. Review of the ODG requires documentation of a radiculopathy along with corroborating evidence on MRI or EMG. This criteria is not met as there is no obvious nerve root compression on the MRI to justify the treatment. The request therefore is not reasonable or necessary per the ODG. Recommend denial."*

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

Epidural Steroid Injections are:

Recommended as a possible option for short-term treatment of radicular pain (defined as pain in dermatomal distribution with corroborative findings of radiculopathy) with use in conjunction with active rehab efforts. See specific criteria for use below. Radiculopathy symptoms are generally due to herniated nucleus pulposus or spinal stenosis, although ESIs have not been found to be as beneficial a treatment for the latter condition. In fact, according to SPORT, ESIs are associated with less improvement in spinal stenosis. (Radcliff, 2013) Short-term symptoms: The American Academy of Neurology recently concluded that epidural steroid injections may lead to an improvement in radicular pain between 2 and 6 weeks following the injection, but they do not affect impairment of function or the need for surgery and do not provide long-term pain relief beyond 3 months. (Armon, 2007) Epidural steroid injection can offer short-term pain relief and use should be in conjunction with other rehab efforts, including continuing a home exercise program. There is little information on improved function or return to work. There is no high-level evidence to support the use of epidural injections of steroids, local anesthetics, and/or opioids as a treatment for acute low back pain without radiculopathy. (Benzon, 1986)

ESIs may be helpful with radicular symptoms not responsive to 2 to 6 weeks of conservative therapy. (Kinkade, 2007) Epidural steroid injections are an option for short-term pain relief of persistent radiculopathy, although not for nonspecific low back pain or spinal stenosis. (Chou, 2008) As noted above, injections are recommended if they can facilitate a return to functionality (via activity & exercise). If post-injection physical therapy visits are required for instruction in these active self-performed exercise programs, these visits should be included within the overall recommendations under Physical therapy, or at least not require more than 2 additional visits to reinforce the home exercise program.

An updated Cochrane review of injection therapies (ESIs, facets, trigger points) for low back pain concluded that there is no strong evidence for or against the use of any type of injection therapy, but it cannot be ruled out that specific subgroups of patients may respond to a specific type of injection therapy. (Staal-Cochrane, 2009) Recent studies document a 629% increase in expenditures for ESIs, without demonstrated improvements in patient outcomes or disability rates. (Deyo, 2009) There is fair evidence that epidural steroid injection is moderately effective for short-term (but not long-term) symptom relief. (Chou3, 2009) This RCT concluded that caudal epidural injections containing steroids demonstrated better and faster efficacy than placebo. (Sayegh, 2009) ESIs are more often successful in patients without significant compression of the nerve root and, therefore, in whom an inflammatory basis for radicular pain is most likely. In such patients, a success rate of 75% renders ESI an attractive temporary alternative to surgery, but in patients with significant compression of the nerve root, the likelihood of benefiting from ESI is low (26%). This success rate may be no more than that of a placebo effect, and surgery may be a more appropriate consideration.

When used for diagnostic purposes the following Procedure Summary – Low Back Procedure/topic Summary of medical evidence indications have been recommended:
1)To determine the level of radicular pain, in cases where diagnostic imaging is ambiguous, including the examples below: 2) To help to evaluate a radicular pain generator when physical signs and symptoms differ from that found on imaging studies; 3) To help to determine pain generators when there is evidence of multi-level nerve root compression; 4) To help to determine pain generators when clinical findings are consistent with radiculopathy (e.g., dermatomal distribution) but imaging studies are inconclusive; 5) To help to identify the origin of pain in patients who have had previous spinal surgery.

Therapeutic phase: If after the initial block/blocks are given (see "Diagnostic Phase" above) and found to produce pain relief of at least 50-70% pain relief for at least 6-8 weeks, additional blocks may be supported. This is generally referred to as the "therapeutic phase." Indications for repeat blocks include acute exacerbation of pain, or new onset of radicular symptoms. The general consensus recommendation is for no more than 4 blocks per region per year. (CMS, 2004) (Boswell, 2007) (8) Repeat injections should be based on continued objective documented pain relief, decreased need for pain medications, and functional response.

The patient suffered an injury with documented radiculopathy with a positive right SLR, decreased sensation to

pin prick in the L5 dermatome, L5S1 disc protrusion with annular tear, and non-responsive to conservative care. The previous denial was based on lack of corroborative findings on MRI and radiculopathy. The Official Disability Guidelines (ODG) do provide for this type of injury and account for it in the ESI section as indicated above: "in whom an inflammatory basis for radicular pain is most likely." Furthermore, utilizing the "When used for diagnostic purposes section" for ESI, as listed above, the patient in fact does meet the criteria for a diagnostic ESI. Therefore, according to the ODG, the request for a L5S1 ESI under fluoroscopy is certified with IV sedation for anxiety. Please note that further requests for ESI must meet the Therapeutic phase criteria.

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

**X ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**