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Description of the service or services in dispute:
Thoracic facet block at T7-T8 and T8-T9 levels

Description of the qualifications for each physician or other health care provider who reviewed the decision:
Board Certified Anesthesiology

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

- ☐ Partially Overturned (Agree in part / Disagree in part)
- ☑ Overturned (Agree)
- ☐ Agree (Upheld)

Patient Clinical History (Summary)
The patient is a- XX-year-old-XX who was diagnosed with sprain of ligaments of cervical spine, initial encounter.
The patiet had sustained an injury on XXXXX, when XXXXX. XX complained of mid-back pain.
Per a report dated XXXXX, neck examination revealed decreased flexion, decreased extension, decreased looking to the right, decreased looking to the left and facet tenderness in cervical area bilaterally. At C2-C3 and C3-C4, facet pain was noted on spine rotation/extension/flexion and palpation and axial loading in the cervical spine. Examination of the thoracic region revealed pain on rotation, interspinous tenderness and facet pain at T7-T11 bilaterally. Toe walking and heel walking were poor. Deep tendon reflexes were diminished in the lower extremities. Straight leg raise was positive on the right. Sensory deficit was noted in the right L5-S1 dermatome. Facet pain was noted on spine rotation/extension/flexion, palpation and axial loading in the lumbar spine. On XXXXX, the patient complained of neck pain. There were no significant changes in physical examination.

A DWC-73 Form was completed by XXXXX, MD. Per the form, the patient was allowed to return to work as of XXXXX through XXXXX with restrictions. The activity restrictions included no driving/operating heavy equipment and push/pull, reach overhead for one hour per day. Restrictions were specific to back and neck. The patient might not lift/carry objects more than 20 pounds for more than eight hours per day. A referral was given for epidural steroid injection.

Treatment to date consisted of medications, physical therapy, and cervical facet blocks at C2-C3 and C3-C4 level at the medial branch of the dorsal ramus bilaterally and thoracic facet blocks at T7-T8 and T8-T9 levels at the medial branch of the dorsal ramus bilaterally.

An MRI of the cervical spine dated XXXXX showed rightward disc herniation measured approximately 4 mm at C5-C6 creating mild to moderate right lateral recess and right foraminal stenosis with impingement upon the right C6 nerve roots. There was borderline stenosis at C6-C7 secondary to posterior disc protrusion measuring 3.1 mm. There was mild left lateral recess stenosis at C2-C3 related to leftward disc protrusion measured 3.2 mm. Straightening of the cervical spinal curvature was noted.

An MRI of the thoracic spine dated XXXXX demonstrated leftward disc protrusion measured approximately 4 mm identified at T8-T9 with resulting mild left lateral recess stenosis and encroachment upon the T8 nerve roots. There was focal rightward disc protrusion measuring 3.1 mm identified at T10-T11 with minimal right lateral recess stenosis. There was mild left lateral recess stenosis at C4-C5 as described above.

An MRI of the left shoulder dated XXXXX revealed no detectable labral tears and there was no significant rotator cuff pathology was seen. There was subtle sub-deltoid bursitis was noted. Spurring, edema and effusions of the OS acromion synchondrosis suggesting microinstability and/or apophysitis was noted.

Per utilization review determination letter dated XXXXX, by XXXXX, DO, the request for thoracic facet block at T7-T8 and T8-T9 levels was denied. There was documentation of the patient having upper back pain followed by blocks and that if those blocks were successful, then a radiofrequency ablation (RFA) procedure coupled with physical therapy was planned. However, thoracic facet blocks were not supported in the guideline criteria due to limited research on blocks or neurotomies in the region and the latter procedure (neurotomies) were not recommended.

A letter by XXXXX, MD XXXXX indicated that the reconsideration request was denied/non-certified. It was determined that there was limited research on therapeutic blocks or neurotomies in the region and the latter procedure (neurotomies) was not recommended. In addition, there was insufficient documentation of imaging supporting thoracic facet disease, thus, the request was not indicated, and the medical necessity was not established.

Analysis and Explanation of the Decision include Clinical Basis, Findings and Conclusions used to support the decision.
This reviewer disagrees with the rationale of performing a MBB of the thoracic facet joints, since RFA in the thoracic region is not evidence-based.

In a review dated XXXXX, Dr. XXXXX correctly cited that thoracic facet blocks were not supported in the guideline criteria due to limited research on blocks or neurotomies in the region and the latter procedure (neurotomies) were not recommended.

In a review dated XXXXX, Dr. XXXXX essentially reiterated this position while citing that there was insufficient documentation of imaging supporting thoracic facet disease, thus, the request was not indicated and the medical necessity was not established.

Not recommended. There is limited research on therapeutic blocks or neurotomies in this region, and the latter procedure (neurotomies) are not recommended.

Recent publications on the topic of therapeutic facet injections have not addressed the use of this modality for the thoracic region. (Boswell, 2005) (Boswell2, 2005) Pain due to facet joint arthrosis is less common in the thoracic area as there is overall less movement due to the attachment to the rib cage. Injection of the joints in this region also presents technical challenge. A current non-randomized study reports a prevalence of facet joint pain of 42% in patients with chronic thoracic spine pain. This value must be put into perspective with the overall frequency of chronic pain in the cervical, thoracic and lumbar region. In this non-randomized study, 500 patients had 724 blocks. Approximately 10% of the blocks were in the thoracic region, with 35.2% in the cervical region and 54.8% in the lumbar. (Manchikanti, 2004)

However, an update in Pain Physician. 2012 Jul-Aug;15(4):E463-81; titled "An update of evaluation of therapeutic thoracic facet joint intervention by Manchikanti et al; stated that "The evidence is fair for therapeutic thoracic facet joint nerve blocks."

In addition, in a recent review in Pain Physician. 2012 Jul-Aug;15(4): E483-96; titled "Diagnostic accuracy of thoracic facet joint nerve blocks: an update of the assessment of evidence by Atluri et al; stated that "evidence for the diagnostic accuracy of thoracic facet joint injections is good"

For these reasons, this reviewer recommends a therapeutic intraarticular facet joint injection at T7/8 and T8/9. The former intervention will have a diagnostic component as well.

A description and the source of the screening criteria or other clinical basis used to make the decision:

- ☐ ACOEM-America College of Occupational and Environmental Medicine um knowledgebase
- ☐ AHRQ-Agency for Healthcare Research and Quality Guidelines DWC-Division of Workers
- ☐ Compensation Policies and Guidelines European Guidelines for Management of Chronic Low Back
- ☐ Pain Interqual Criteria
- ☑ Medical Judgment, Clinical Experience, and expertise in accordance with accepted medical standards
- ☐ Mercy Center Consensus Conference Guidelines
- ☐ Milliman Care Guidelines
- ☐ ODG-Official Disability Guidelines and Treatment Guidelines
- ☐ Pressley Reed, the Medical Disability Advisor
- ☐ Texas Guidelines for Chiropractic Quality Assurance and Practice Parameters
- ☐ Texas TACADA Guidelines
- ☐ TMF Screening Criteria Manual
- ☑ Peer Reviewed Nationally Accepted Medical Literature (Provide a description)
  Systematic reviews endorsing therapeutic intra-articular facet blocks:

Pain Physician, 2005: In 2005, there were two positive systematic reviews published in Pain Physician that stated that the evidence was moderate for short-term and limited for long-term improvement using this intervention. (Boswell, 2005) (Boswell, 2005) These results were based, in part, on five observational studies. These non-controlled studies were confounded by variables such as lack of confirmation of diagnosis by dual blocks and recording of subjective pain relief, or with measures that fell under verbal rating and/or pain relief labels (measures that have been reported to have problems with validity). (Edwards, 2005)

Pain Physician, 2007: Pain Physician again published a systematic review on this subject in 2007 and added one additional randomized trial comparing intra-articular injections with sodium hyaluronate to blocks with triamcinolone acetonide. The diagnosis of facet osteoarthritis was made radiographically. (Fuchs, 2005) Two randomized trials were not included, in part because they failed to include controlled diagnostic blocks. These latter articles were negative toward the use of therapeutic facet blocks. (Lilius, 1989) (Marks, 1992) An observational non-controlled study with positive results was included that made the diagnosis of lumbar facet syndrome based on clinical assessment of "pseudoradicular" lumbar pain, including evidence of an increase of pain in the morning and with excessive stress and exercise (no diagnostic blocks were performed). (Schulte, 2006) With the inclusion of these two articles, the conclusion was changed so that the evidence for lumbar intra-articular injections was "moderate" for both short-and long-term improvement of low back pain. (Boswell2, 2007)

Complications: These included suppression of the hypothalamic-pituitary-adrenal axis for up to 4 weeks due to steroids with resultant elevated glucose levels for less than a week. (Ward, 2002) There have been rare cases of infection (septic arthritis, epidural abscess and meningitis). (Cohen, 2007) Complications from needle placement include dural puncture, spinal cord trauma, intra-arterial and intravenous injection, spinal anesthesia, neural trauma, pneumothorax, and hematoma formation. (Boswell2, 2007)

Single photon emission computed tomography: (bone scintigraphy, SPECT scan): Not recommended, although recent research is promising. This technique is recommended based on the ability of radionuclide bone scintigraphy to detect areas of increased function, depicting synovial areas of inflammation as well as degenerative changes. Thirteen of 15 patients had a > 1 standard deviation pain score improvement at 1 month versus 7 of 32 patients with a negative or no scan. The benefit of the injection lasted for approximately 3 months and did not persist to 6 months. (Pneumaticos2, 2006)

Suggested indicators of pain related to facet joint pathology (acknowledging the contradictory findings in current research):
(1) Tenderness to palpation in the paravertebral areas (over the facet region);
(2) Predominantly axial low back pain;
(3) Absence of radicular findings in a dermatomal distribution, although pain may radiate below the knee.

☐ Other evidence based, scientifically valid, outcome focused guidelines (Provide a description)