

COMPREHENSIVE SPINE INSTITUTE

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PRIOR AUTHORIZATION REQUEST

Multiple Level Bilateral Transforaminal Epidural Steroid Injections

PATIENT DEMOGRAPHICS

Patient Name: Harold T. Richardson

Date of Birth: September 3, 1951 (Age 72 years)

Insurance Member ID: HUMANA-TX-9283746

Group Number: GRP-RETIRE-554

Primary Care Physician: Dr. Margaret Stevens, MD

Requesting Provider: Jonathan Wu, MD - Interventional Pain Management

Provider NPI: 4729384650

Request Date: September 12, 2024

REQUESTED PROCEDURES - MULTIPLE LEVELS

COMPREHENSIVE MULTILEVEL INJECTION PROTOCOL

Level	Side	CPT Code	Procedure Description
L3-L4	Bilateral (Right & Left)	64483 (Right) 64484 (Left)	Bilateral L3 transforaminal epidural steroid injections
L4-L5	Bilateral (Right & Left)	64483 (Right) 64484 (Left)	Bilateral L4 transforaminal epidural steroid injections
L5-S1	Bilateral (Right & Left)	64483 (Right) 64484 (Left)	Bilateral L5 transforaminal epidural steroid injections

Total Injection Plan: 6 separate injections (3 bilateral levels) in single session

Technique: Fluoroscopy-guided transforaminal approach with contrast confirmation at each level

Steroid Agent: Dexamethasone 6mg per injection site (non-particulate) - Total dose 36mg

Proposed Date: September 28, 2024

Facility: Comprehensive Spine Institute Ambulatory Surgery Center

CLINICAL RATIONALE FOR MULTILEVEL BILATERAL APPROACH:

Mr. Richardson presents with severe, multilevel lumbar spinal stenosis affecting L3-L4, L4-L5, and L5-S1 levels bilaterally. His symptoms are complex and multilevel in nature, involving bilateral neurogenic claudication and radicular symptoms affecting multiple nerve roots on both sides. Given the extent of his pathology documented on MRI and the bilateral, multilevel nature of his symptoms, a comprehensive multilevel bilateral injection approach is requested to address all symptomatic levels simultaneously and provide optimal therapeutic benefit.

DIAGNOSIS CODES

Primary Diagnosis:	M48.06 - Spinal stenosis, lumbar region
Secondary Diagnosis:	M54.17 - Radiculopathy, lumbosacral region
Secondary Diagnosis:	M99.03 - Segmental and somatic dysfunction, lumbar region
Tertiary Diagnosis:	M54.16 - Radiculopathy, lumbar region (bilateral)
Additional Diagnosis:	M54.5 - Low back pain

CLINICAL PRESENTATION & HISTORY

Chief Complaint: Severe bilateral leg pain and weakness with ambulation

History of Present Illness:

Mr. Richardson is a 72-year-old retired petroleum engineer presenting with a 6-month history of progressive bilateral lower extremity symptoms consistent with multilevel neurogenic claudication. Patient reports symptoms began gradually in March 2024 and have progressively worsened despite conservative management.

Patient describes his symptoms as follows:

- **Bilateral leg pain:** Cramping, aching pain in both thighs and calves that begins after walking approximately 50-75 yards
- **Bilateral foot numbness:** "Pins and needles" sensation affecting both feet, more pronounced on left
- **Progressive weakness:** Sensation that "both legs are going to give out" with continued ambulation
- **Position-dependent symptoms:** Pain and weakness worsen with standing and walking, improve dramatically with sitting or forward flexion (classic shopping cart sign positive)
- **Bilateral radicular pain:** Sharp, shooting pains radiating down both legs into feet, involving multiple dermatomal distributions (L3, L4, L5 patterns bilaterally)

Functional Impact:

- Walking tolerance reduced to <100 yards before severe symptoms force rest
- Previously walked 2-3 miles daily for exercise - now unable to perform
- Requires motorized cart for grocery shopping
- Difficulty with prolonged standing (cooking, showering >10 minutes)
- Sleep disturbance 5-6 nights per week due to leg discomfort
- Significant impact on quality of life and independence

Current Pain Assessment:

- **Numeric Rating Scale (NRS):** 8-9/10 when symptomatic (with ambulation), 4-5/10 at rest
- **Oswestry Disability Index (ODI):** 62% (Severe Disability) - Assessed September 10, 2024
- Pain significantly interferes with all activities of daily living
- Patient reports feeling "imprisoned" by his limited mobility

CONSERVATIVE TREATMENT HISTORY

Duration of Conservative Care: 22 weeks (5.5 months) - March 2024 to September 2024

Treatment Modality	Duration	Response
Oral Medications		
NSAIDs (Celecoxib 200mg daily)	20 weeks	Minimal reduction in axial back pain. No significant improvement in radicular symptoms or walking tolerance. Continued use.
Gabapentin (Titrated to 1800mg/day)	18 weeks (300mg TID → 600mg TID)	Moderate improvement in neuropathic symptoms (paresthesias). Pain reduction approximately 20-25%. No improvement in mechanical symptoms or walking tolerance. Ongoing.
Duloxetine 60mg daily	12 weeks	Added for neuropathic pain component. Slight additional benefit beyond gabapentin. Continued.

Acetaminophen 1000mg TID	22 weeks	Minimal impact. Used for baseline pain management.
Physical Therapy	16 weeks (32 sessions, 2x/week)	Comprehensive program including flexion-based exercises (Williams protocol), aquatic therapy, core stabilization, and gait training. Patient reports <20% improvement in symptoms. Walking tolerance improved from ~50 yards to ~75 yards. Continues 2x weekly.
Home Exercise Program	16 weeks (ongoing)	Daily compliance with prescribed exercises. Stationary bike 15 minutes daily in flexed position. Lumbar flexion stretches. Core strengthening.
Spinal Decompression Therapy	8 weeks (16 sessions)	Non-surgical decompression treatments. Temporary relief during treatment sessions but no sustained benefit. Discontinued after 8 weeks.
Chiropractic Care	6 weeks (12 sessions)	Gentle manipulation and mobilization. No sustained benefit. Discontinued.
Activity Modification	22 weeks (ongoing)	Using walker for outdoor ambulation. Motorized cart for shopping. Avoiding prolonged standing and walking. Lifestyle significantly restricted.

Conservative Care Summary: Patient has undergone comprehensive, multimodal conservative treatment for 22 weeks including optimal medical management (NSAIDs, gabapentin, duloxetine), extensive physical therapy (32 sessions), home exercise program, spinal decompression therapy, and chiropractic care. Despite excellent compliance with all recommended treatments, patient has achieved <25% overall improvement in symptoms and remains severely functionally limited (ODI 62%).

DIAGNOSTIC IMAGING

MRI Lumbar Spine with and without Contrast

Date: August 15, 2024

Facility: Houston Advanced Imaging Center

Indication: Bilateral neurogenic claudication, multilevel stenosis evaluation

Technique: Complete lumbar spine MRI protocol including pre and post-gadolinium contrast imaging, multiplanar sequences (T1, T2, STIR) in sagittal and axial planes.

Findings - Multilevel Pathology:

L3-L4 Level:

- **Severe bilateral foraminal stenosis**
- Bilateral facet joint hypertrophy with effusions
- Ligamentum flavum thickening (5mm bilateral)
- Bilateral L3 nerve root compression in neural foramina
- Moderate central canal stenosis (9mm AP diameter)
- Grade 1 degenerative retrolisthesis

L4-L5 Level:

- **Severe central canal stenosis** (6mm AP diameter - critical stenosis)
- Severe bilateral foraminal stenosis
- Bilateral facet joint hypertrophy and effusions
- Ligamentum flavum thickening (6mm bilateral)
- **Bilateral L4 nerve root compression** - moderate to severe in both lateral recesses and foramina
- Diffuse disc bulge with superimposed small central disc protrusion

L5-S1 Level:

- **Moderate to severe bilateral foraminal stenosis**
- Bilateral facet arthropathy with hypertrophy
- Bilateral L5 nerve root impingement in neural foramina
- Moderate central canal stenosis (8mm AP diameter)
- Bilateral posterolateral disc bulges

Additional Findings:

- Multilevel facet effusions L3-S1 bilaterally (inflammatory changes)
- Multilevel degenerative disc disease L3-S1
- No evidence of infection, tumor, or acute fracture
- Vertebral alignment maintained, no significant spondylolisthesis except Grade 1 at L3-L4

MRI Impression:

- 1. Severe multilevel lumbar spinal stenosis affecting L3-L4, L4-L5, and L5-S1 with bilateral neural foraminal stenosis at all three levels
- 2. Bilateral nerve root compression at L3, L4, and L5 levels
- 3. Findings highly concordant with clinical presentation of multilevel bilateral neurogenic claudication and radiculopathy
- 4. Most severe stenosis at L4-L5 (critical central canal stenosis 6mm) with additional significant stenosis at L3-L4 and L5-S1

PHYSICAL EXAMINATION

Examination Date: September 10, 2024

Vital Signs: BP 148/86, HR 76, BMI 28.9, Temperature 98.6°F

General Appearance: Well-appearing 72-year-old male in no acute distress at rest. Walks with slow, cautious gait. Uses walker for stability.

Lumbar Spine Examination:

- Posture: Mildly forward-flexed (antalgic posture)
- ROM: Significantly limited in all planes
 - Flexion: To mid-thigh level (~50°), limited by pain
 - Extension: 10° (markedly reproduces bilateral leg symptoms)
 - Lateral bending: 15° bilaterally (symmetric limitation)
- Palpation: Diffuse tenderness bilateral paraspinal muscles L3-S1, no focal midline tenderness

Neurological Examination (At Rest):

Parameter	Right Lower Extremity	Left Lower Extremity
Motor Strength		
Hip Flexion (L2-L3)	5/5	5/5
Knee Extension (L4)	5/5	5/5

Ankle Dorsiflexion (L4-L5)	4+/5	4/5 (weaker)
Great Toe Extension (L5)	4/5	4/5
Ankle Plantarflexion (S1)	5/5	5/5
Sensory Examination		
Light Touch	Decreased anterior thigh (L3), dorsal foot (L5)	Decreased anterior thigh (L3), medial leg (L4), dorsal foot (L5)
Reflexes		
Patellar (L4)	1+ (diminished)	1+ (diminished)
Achilles (S1)	1+ (diminished)	Trace (markedly diminished)

Post-Ambulation Neurological Examination (After 3-minute walk test):

- Bilateral quadriceps weakness develops: 4/5 bilaterally (compared to 5/5 at rest)
- Bilateral ankle dorsiflexion weakness worsens: 4/5 right, 3+/5 left
- Patient reports severe bilateral leg pain 9/10, cramping, and heaviness
- Gait becomes markedly more impaired, shuffling, wide-based
- Symptoms resolve within 5 minutes of sitting with forward flexion
- **Classic multilevel neurogenic claudication pattern confirmed**

Special Tests:

- Straight Leg Raise: Limited bilaterally to 60° due to tightness, no frank radicular reproduction
- Femoral Nerve Stretch: Mildly positive bilaterally (anterior thigh discomfort)
- Forward Flexion Relief Sign: Strongly positive - symptoms markedly improve with lumbar flexion

CLINICAL ASSESSMENT & TREATMENT RATIONALE

Mr. Richardson presents with severe, multilevel lumbar spinal stenosis affecting L3-L4, L4-L5, and L5-S1 levels bilaterally, resulting in complex bilateral neurogenic claudication and multilevel radiculopathy. MRI imaging demonstrates:

- Bilateral nerve root compression at L3, L4, and L5 levels
- Critical central canal stenosis at L4-L5 (6mm)
- Severe bilateral foraminal stenosis at all three levels
- Multilevel facet effusions indicating inflammatory component

Clinical examination confirms multilevel, bilateral symptomatology with objective findings including:

- Bilateral weakness in multiple myotomes (L4, L5)
- Multilevel bilateral sensory deficits (L3, L4, L5 dermatomes)
- Diminished reflexes bilaterally
- Post-ambulation neurological deterioration (pathognomonic for neurogenic claudication)

Patient has failed 22 weeks of comprehensive, guideline-concordant conservative management including optimal pharmacotherapy, extensive physical therapy (32 sessions), home exercise program, and multiple adjunctive therapies. Functional capacity remains severely limited (ODI 62%) with walking tolerance <100 yards.

MULTILEVEL BILATERAL INJECTION RATIONALE:

Given the multilevel, bilateral nature of Mr. Richardson's pathology and the severe, diffuse compression affecting multiple nerve roots on both sides, I am recommending a comprehensive approach addressing all symptomatic levels simultaneously:

1. Bilateral L3 TFESI (L3-L4 level): To address bilateral L3 nerve root compression in severely stenotic foramina

2. Bilateral L4 TFESI (L4-L5 level): To address bilateral L4 nerve root compression at the most critically stenotic level (6mm central canal stenosis, severe bilateral foraminal stenosis)

3. Bilateral L5 TFESI (L5-S1 level): To address bilateral L5 nerve root compression and foraminal stenosis

Advantages of simultaneous multilevel bilateral approach:

- Comprehensive treatment of all pathological levels in one session
- Avoids need for multiple separate procedures over time
- Addresses the multilevel inflammatory component demonstrated by facet effusions
- Maximizes therapeutic benefit by targeting all symptomatic nerve roots
- More cost-effective than staged procedures
- Single recovery period for patient rather than multiple
- Best opportunity to provide meaningful functional improvement given severity of multilevel disease

Safety Considerations:

- Will use non-particulate steroid (dexamethasone 6mg per level, 36mg total dose - within safe limits)
- Fluoroscopic guidance with contrast at each level to ensure accurate, safe needle placement
- All injections performed under real-time fluoroscopic visualization
- Patient will be monitored for extended period (60 minutes) post-procedure
- Procedure performed in AAAHC-accredited surgery center with full resuscitation capabilities

Post-Procedure Management Plan:

- Continue physical therapy 2x weekly with focus on functional restoration and core stabilization
- Maintain current medication regimen
- Gradual progressive ambulation as tolerated
- Follow-up at 2 weeks and 6 weeks post-procedure to assess response
- Outcomes assessment using NRS and ODI at follow-up visits
- If inadequate response (<50% improvement) at 3 months, will refer to spine surgery for surgical evaluation

Expected Outcomes: Anticipate 50-70% reduction in pain, significant improvement in walking tolerance, reduction in ODI score by 20-30 percentage points, and meaningful improvement in quality of life and functional independence.

Clinical Summary:

This multilevel bilateral epidural steroid injection protocol is medically necessary for a 72-year-old patient with severe, multilevel lumbar spinal stenosis causing bilateral neurogenic claudication and multilevel radiculopathy. Patient has bilateral nerve root compression at L3, L4, and L5 levels documented on MRI, has failed 22 weeks of comprehensive conservative management, and remains severely disabled (ODI 62%). A comprehensive multilevel bilateral approach is requested to address all pathological levels simultaneously and provide the best opportunity for meaningful functional improvement.

Respectfully Submitted,

Jonathan Wu, MD
Board Certified Anesthesiology and Pain Medicine
Fellowship Trained Interventional Pain Management
Comprehensive Spine Institute

Electronically Signed: September 12, 2024 at 11:15 AM CST
Provider NPI: 4729384650

For Authorization Questions or Clinical Discussion:

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