MOUNTAIN VIEW PAIN & SPINE CENTER

7800 East Independence Boulevard | Denver, CO 80237

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Patient: Nelson, Barbara J.

Date of Birth: 07/30/1951 (Age: 74)

MRN: 2025-10-NLS847

Visit Date: October 22, 2025

Provider: Dr. Christine Lee, MD

Insurance: Medicare Part B

CHIEF COMPLAINT

Persistent mid-back pain following fall 6 weeks ago, not improving with conservative treatment.

HISTORY OF PRESENT ILLNESS

Ms. Nelson is a 74-year-old woman who presents for evaluation of thoracic spine pain. **Patient's injury occurred exactly 6 weeks ago today (September 10, 2025)** when she missed a step going down her basement stairs and fell, landing seated on a lower step. She experienced immediate mid-back pain and presented to her PCP the following day.

Initial X-rays at her PCP's office showed compression deformity at T12. She was started on tramadol and instructed on activity modification. Her PCP ordered an MRI which was completed 2 weeks post-injury and confirmed acute T12 compression fracture with bone marrow edema.

Patient has been compliant with conservative management including analgesics (tramadol 50mg TID, acetaminophen 650mg QID), wearing a thoracolumbar brace during daytime hours, and limiting activities. **Her pain intensity has remained stable at 5/10 for the past 4 weeks without further improvement** despite ongoing treatment and medication adjustments.

Pain characteristics: Constant, aching quality with sharp exacerbations during movement. Localized to mid-thoracic region (T11-L1 level). Worsens with standing, sitting upright, and any trunk movement. Improves slightly with recumbent positioning. Patient reports the pain is manageable but preventing her from resuming normal activities and significantly impacting her quality of life.

PAIN TRAJECTORY

Date	Weeks Post-Injury	NRS Score	Clinical Context
09/10/2025	Day 0	8/10	Injury date
09/11/2025	Day 1	8/10	PCP visit, X-ray, tramadol started
09/18/2025	Week 1	7/10	PCP follow-up, brace fitted
09/25/2025	Week 2	5/10	MRI completed
10/02/2025	Week 3	5/10	PCP visit, pain stable
10/09/2025	Week 4	5/10	Pain plateau noted
10/16/2025	Week 5	5/10	Referred to spine specialist
10/22/2025	**Week 6 (42 days)**	**5/10**	Today's evaluation

PAST MEDICAL HISTORY

• Osteoporosis - diagnosed 2022 (DEXA T-score -2.9 lumbar spine)
• Hypertension - well controlled on single agent
• Gastroesophageal reflux disease
• Seasonal allergies
• History of Colles fracture, right wrist (2020)

MEDICATIONS

• Risedronate sodium 35mg PO weekly (takes Mondays)
• Calcium carbonate 1200mg + Vitamin D3 1000 IU daily
• Amlodipine 5mg daily
• Omeprazole 20mg daily
• Loratadine 10mg daily PRN
• Tramadol 50mg TID for pain
• Acetaminophen 650mg QID

ALLERGIES

Codeine (nausea)

SOCIAL HISTORY

Retired librarian. Widowed, lives alone in two-story home. Adult daughter lives nearby and checks on her daily. Non-smoker, no alcohol use. Previously very active - enjoyed gardening and volunteer work at local library. Currently unable to perform these activities due to pain.

PHYSICAL EXAMINATION

Vital Signs: BP 128/76, HR 72, RR 14, T 98.0°F, Weight 142 lbs, Height 5'4"

General: Alert, oriented, cooperative. Appears well but moves cautiously.

Cardiovascular: Regular rate and rhythm, no murmurs

Respiratory: Clear to auscultation bilaterally

Spine:
- Inspection: Mild thoracic kyphosis, no gross deformity visible
- Palpation: Point tenderness over T12 spinous process. No paraspinal spasm.
- Range of motion: Limited flexion/extension due to pain, approximately 50% of normal
- No step-offs palpable

Neurological:
- Mental status: Alert and oriented x3
- Motor: 5/5 strength bilateral lower extremities (hip flexion, knee extension/flexion, ankle dorsi/plantarflexion)
- Sensory: Intact to light touch and pinprick L1-S1 dermatomes
- Reflexes: Patellar 2+, Achilles 2+, symmetric
- Straight leg raise: Negative bilaterally
- Gait: Steady but slow, slightly antalgic
- No saddle anesthesia

IMAGING STUDIES

Thoracic Spine X-Ray (09/11/2025):
Compression deformity T12 vertebral body with approximately 20% anterior height loss. Recommend MRI for further evaluation.

MRI Thoracic Spine Without Contrast (09/24/2025):
TECHNIQUE: Standard multiplanar sequences including T1, T2, and STIR

FINDINGS:
- Compression fracture of T12 vertebral body
- Bone marrow edema present within T12 on STIR images, consistent with acute fracture
- Anterior wedge configuration with approximately 22% anterior height loss
- No posterior cortical disruption
- No retropulsion of fracture fragments
- Spinal canal patent without stenosis
- Spinal cord normal in caliber and signal intensity
- Mild degenerative changes throughout thoracic spine

IMPRESSION: Acute compression fracture T12 with bone marrow edema. No spinal canal compromise or neural element compression.

Serial X-Ray Comparison (09/11/2025 vs 10/20/2025):
Initial height loss: 20%
Current height loss: 30%
Progression of vertebral height loss documented (20% → 30%)

DEXA Scan (03/15/2024):
Lumbar Spine (L1-L4): T-score -2.9, Z-score -1.6
Left Femoral Neck: T-score -2.3, Z-score -1.1
Total Hip: T-score -2.4, Z-score -1.2
DIAGNOSIS: Osteoporosis

FUNCTIONAL ASSESSMENT

Roland Morris Disability Questionnaire (RMD) - Administered 10/22/2025:

Total Score: 18/24 (Severe Disability)

Patient endorsed the following limitations:

✓ I stay at home most of the time because of my back
✓ I change position frequently to try to get my back comfortable
✓ I walk more slowly than usual because of my back
✓ Because of my back, I am not doing any of the jobs that I usually do around the house
✓ Because of my back, I use a handrail to get upstairs
✓ Because of my back, I lie down to rest more often
✓ Because of my back, I have to hold onto something to get out of an easy chair
✓ Because of my back, I try to get other people to do things for me
✓ I get dressed more slowly than usual because of my back
✓ I only stand up for short periods of time because of my back
✓ Because of my back, I try not to bend or kneel down
✓ I find it difficult to get out of a chair because of my back
✓ My back is painful almost all the time
✓ I find it difficult to turn over in bed because of my back
✓ My appetite is not very good because of my back pain
✓ I have trouble putting on my socks (or stockings) because of my back

✓ I only walk short distances because of my back pain
✓ I sleep less well because of my back

CONSERVATIVE TREATMENT SUMMARY (6 Weeks)

Pharmacologic:
• Tramadol 50mg TID - started 09/11/2025, ongoing
• Acetaminophen 650mg QID - added 09/18/2025, ongoing
• Continuation of osteoporosis treatment (risedronate, calcium, vitamin D)

Non-Pharmacologic:
• Thoracolumbar orthosis (TLSO) fitted 09/18/2025, worn daily during waking hours
• Activity modification - limited lifting, bending, twisting
• Ice therapy first 2 weeks, then heat as tolerated
• Walking for gentle exercise as tolerated

Duration: **Exactly 6 weeks (42 days) of conservative management**

Response: Initial improvement from 8/10 to 5/10 in first 2 weeks, then pain plateau at 5/10 for subsequent 4 weeks without further improvement despite ongoing treatment.

LABORATORY DATA

Test	Result	Reference Range	Date
Hemoglobin	13.2 g/dL	12.0-16.0	10/20/2025
WBC	6.8 K/uL	4.5-11.0	10/20/2025
Platelet	245 K/uL	150-400	10/20/2025
Creatinine	0.9 mg/dL	0.6-1.2	10/20/2025
Calcium	9.5 mg/dL	8.5-10.5	10/20/2025
ESR	18 mm/hr	0-20	10/20/2025
CRP	0.4 mg/dL	<1.0	10/20/2025
25-OH Vitamin D	38 ng/mL	30-100	09/15/2025

ASSESSMENT

1. **Acute (6-week) osteoporotic compression fracture T12** with persistent moderate pain despite optimal conservative management
2. Documented progression of vertebral body height loss (20% → 30%)
3. Severe functional disability (RMQ score 18/24, exceeds threshold of 17)
4. Osteoporosis on bisphosphonate therapy

PHYSICIAN ASSESSMENT AND RECOMMENDATION

Ms. Nelson is a 74-year-old woman presenting for evaluation exactly 6 weeks after sustaining an acute T12 compression fracture. This represents the upper limit of the "acute" timeframe per clinical guidelines (< 6 weeks), though she would also qualify under "subacute" criteria (6-12 weeks). MRI performed at 2 weeks post-injury confirmed bone marrow edema consistent with acute fracture.

Her pain has remained stable at the threshold level of 5/10 for the past 4 weeks despite appropriate conservative management including analgesics, bracing, and activity modification. While this represents the minimum pain threshold for consideration of intervention (NRS ≥5), she meets additional supporting criteria that strengthen the indication for vertebroplasty.

Specifically, she demonstrates: (1) documented progression of vertebral height loss from 20% to 30% on serial imaging, which exceeds the >25% threshold; and (2) severe functional impairment with RMQ score of 18, which exceeds the threshold of 17. These two factors, combined with stable moderate pain despite ongoing treatment, meet criteria for percutaneous vertebral augmentation.

Her neurological examination is intact without evidence of cord compression or neural impingement. She has no contraindications to the procedure.

I have discussed treatment options extensively with Ms. Nelson. She understands that her pain has plateaued and that continued conservative management may not result in further improvement. We reviewed the vertebroplasty procedure, including potential risks (cement extravasation, infection, bleeding, new fractures, worsening pain, rare neurological injury) and expected benefits (pain reduction, improved function, decreased analgesic requirements). Patient is well-informed and wishes to proceed.

Patient is currently on appropriate osteoporosis therapy with risedronate. I have counseled her on the importance of continued treatment and scheduled follow-up with her PCP to ensure ongoing bone health management.

PLAN

1. **Request pre-authorization for percutaneous vertebroplasty at T12**
2. Continue current analgesic regimen pending procedure
3. Continue thoracolumbar orthosis
4. Continue osteoporosis treatment - risedronate, calcium, vitamin D supplementation
5. Follow-up with PCP for continued osteoporosis management and DEXA scan in 1 year
6. Patient education reinforced: fall prevention, proper body mechanics, bone health
7. Schedule procedure once insurance approval obtained
8. Post-procedure plan: gradual mobilization, physical therapy for strengthening, analgesic wean

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Electronically Signed:
Christine Lee, MD, FAAPMR
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Interventional Spine & Pain Management
NPI: 1597534682
Colorado Medical License: 43210

Date: October 22, 2025
Time: 11:15 AM MDT