A Case Study Identifying Rating Issues

2017 DWC Conference
Disability Evaluation Unit

Rating Problem

Office Supervisor (occupational group 360)
2009 DOI      59 years old

Chair broke and injured fell to floor sustaining injuries to:
  • Cervical spine
  • Bilateral shoulder
  • Bilateral knee
  • Left carpal tunnel syndrome
Cervical Spine

- Disc protrusions at C4-5 and C5-6
- Chronic neck pain
- Physician rated using ROM method
- 18 WP Impairment

ROM Method

Three Components of Impairment

1) Diagnosis (Table 15-7)

2) Range of motion measurements (Tables 15-8 through 15-14)

3) Nerve Deficit
   - Sensory deficit (Tables 15-15, 15-17, 15-18)
   - Motor deficit (Tables 15-16, 15-17, 15-18)
### Diagnostic Component

#### Table 15-7 AMA Guides page 404

<table>
<thead>
<tr>
<th>Cervical</th>
<th>Thoracic</th>
<th>Lumbar</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

II. Intervertebral disk or other soft-tissue lesion

Diagnostic must be based on clinical symptoms and signs and imaging information.

- A. Unoperated on, with no residual signs or symptoms.
- B. Unoperated on, with medically documented injury, pain, and rigidity associated with none to minimal degenerative changes on structural tests.
- C. Unoperated on, stable, with medically documented injury, pain, and rigidity associated with moderate to severe degenerative changes on structural tests; includes herniated nucleus pulposus with or without nerve root impingement.
- D. Surgically treated disk lesion without residual signs or symptoms; includes disk injection.
- E. Surgically treated disk lesion with residual, medically documented pain and rigidity.
- F. Multiple levels, with or without operations and with or without residual signs or symptoms.
- G. Multiple operations with or without residual signs or symptoms
  - 1. Second operation
  - 2. Third or subsequent operation

Add 1% per level

Add 2%

Add 1% per operation

### Cervical ROM

#### Cervical Flexion Table 15-12

<table>
<thead>
<tr>
<th>Degrees</th>
<th>Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>
### Cervical ROM

#### Cervical Extension Table 15-12

<table>
<thead>
<tr>
<th>Degrees</th>
<th>Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
</tr>
<tr>
<td>60</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Cervical Lateral Bending Table 15-13

<table>
<thead>
<tr>
<th>Degrees</th>
<th>Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>45</td>
<td>0</td>
</tr>
</tbody>
</table>

*Left lateral bending 2 WP Right lateral bending 2 WP*
Cervical ROM

Cervical Rotation Table 15-13

<table>
<thead>
<tr>
<th>Degrees</th>
<th>Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
</tr>
<tr>
<td>60</td>
<td>1</td>
</tr>
<tr>
<td>80</td>
<td>0</td>
</tr>
</tbody>
</table>

Left Rotation 0 WP Right Rotation 0 WP

Cervical ROM

Add ROM Impairments

<table>
<thead>
<tr>
<th>Motion</th>
<th>WP Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexion</td>
<td>4</td>
</tr>
<tr>
<td>Extension</td>
<td>4</td>
</tr>
<tr>
<td>Left lateral bending</td>
<td>2</td>
</tr>
<tr>
<td>Right lateral bending</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
Combining Diagnostic ROM

Diagnostic 7 WP

ROM 12 WP

12 C 7 = 18 WP

15.01.02.02 - 18 - [5]23 - 360G - 26 – 32

Neurologic Component

• Disc protrusion at C4-5 and C5-6
• Potential involvement of C5 and C6 nerves
• No mention of radiculopathy
• No neurologic impairment given
Neurologic Component

Table 15-17  Unilateral Spinal Nerve Root Impairment Affecting the Upper Extremity*

<table>
<thead>
<tr>
<th>Nerve Root Impaired</th>
<th>Maximum % Loss of Function Due to Sensory Deficit or Pain</th>
<th>Maximum % Loss of Function Due to Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>C6</td>
<td>8</td>
<td>35</td>
</tr>
<tr>
<td>C7</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>C8</td>
<td>5</td>
<td>45</td>
</tr>
<tr>
<td>T1</td>
<td>5</td>
<td>20</td>
</tr>
</tbody>
</table>

* For description of the process of determining impairment percent, see text.

Why ROM Method?

Criteria for ROM Method

- Multi-level Radiculopathy
- Multi-level fracture
- Multi-level Alteration of Motion Segment Integrity
- Recurrent Radiculopathy
## DRE Categories

<table>
<thead>
<tr>
<th>DRE I</th>
<th>Subjective findings only</th>
</tr>
</thead>
</table>
| DRE II | Muscle guarding/asymmetric ROM  
Unverified radiculopathy  
Resolved verified radiculopathy |
| DRE III | Unresolved verified radiculopathy  
Spine surgery one level |
| DRE IV | Alteration motion segment integrity (fusion)  
Bilateral or multi-level radiculopathy (cervical thoracic spines) |
| DRE V  | Alteration motion segment integrity  
With radiculopathy |

## Radiculopathy

**Verified Radiculopathy**

- Clinical findings in dermatome pattern
  
  Numbness  
  Pain  
  Weakness

- Corresponding imaging studies
Spine Rating Tip

Radiculopathy

Alteration of function of nerve root

Important for

• Choice of rating method

• Placement in DRE category

Left Carpal Tunnel

• 13% grip loss: 10 UE

• Physician gave as a result of carpal tunnel surgery

• Physician cited Almaraz/Guzman, but provided no rationale as to why grip loss was the most accurate impairment
### Table 16-34
**Grip Loss**

<table>
<thead>
<tr>
<th>% Strength Loss</th>
<th>Upper Extremity Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-30</td>
<td>10</td>
</tr>
<tr>
<td>31-60</td>
<td>20</td>
</tr>
<tr>
<td>61-100</td>
<td>30</td>
</tr>
</tbody>
</table>

---

**Left Carpal Tunnel**

Is grip used to rate carpal tunnel syndrome?

Is there a standard method to rate Carpal Tunnel Syndrome?
Left Carpal Tunnel

Grip loss rating

16.01.04.00 - 6 - [4]7 - 360G - 8 – 10 PD

Left Shoulder Impairment

- Left shoulder impingement
- Decreased range of motion
- 2 WP pain add-on
Shoulder Motions

- Flexion/Extension
- Abduction
- External/Internal Rotation

Shoulder Flexion and Extension

- Flexion 160 degrees
- Extension 46 Degrees
Shoulder Abduction and Adduction

Abduction 162 degrees
Adduction 32 Degrees

Shoulder External and Internal Rotation

External Rotation 75 Degrees
Internal Rotation 64 Degrees
Left Shoulder ROM Impairment

<table>
<thead>
<tr>
<th>Movement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extension</td>
<td>0</td>
</tr>
<tr>
<td>Flexion</td>
<td>1</td>
</tr>
<tr>
<td>Abduction</td>
<td>1</td>
</tr>
<tr>
<td>Adduction</td>
<td>1</td>
</tr>
<tr>
<td>External Rotation</td>
<td>2</td>
</tr>
<tr>
<td>Internal Rotation</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>5 UE x 0.6 = 3 WP</td>
</tr>
</tbody>
</table>

PDRS Page 1-12

Pursuant to Chapter 18 of the AMA Guides, a whole person impairment rating based on the body or organ rating system of the AMA Guides (Chapters 3 through 17) may be increased by 0% up to 3% WPI if the burden of the worker’s condition has been increased by pain-related impairment in excess of the pain component already incorporated in the WPI rating in Chapters 3-17. (AMA Guides, p. 573.)
**Addressing Pain Add-on**

- Maximum 3 WP
- AMA impairments account for common pain
- Must increase burden in excess of pain component already incorporated

**Pain Add-On**

- Must be added to a ratable impairment
- Physician should assign to body part
- DEU will assign pain to body part if physician does not on consultative and summary ratings
Left Shoulder Rating

Left shoulder ROM

16.02.01.00 - 5 - [7]7 - 360G - 8 – 10
2 WP add-on included for pain

Right Shoulder

- Distal clavicle arthroplasty
- Rotator cuff repair
- Physician rated ROM and muscle strength, but did not include distal clavicle arthroplasty
Distal Clavicle Arthroplasty

- Most common
- Resection
- 10 Upper Extremity Impairment per Table 16-27

An Arthroplasty by Any Other Name

Is Still 10 UE

- Distal clavicle arthroplasty
- Mumford procedure
- Distal clavicle resection
- Distal clavicle excision
Shoulder Flexion and Extension

Flexion 162 degrees

Extension 40 Degrees

Shoulder Abduction and Adduction

Abduction 156 degrees

Adduction 35 Degrees
Shoulder External and Internal Rotation

External Rotation 70 Degrees
Internal Rotation 62 Degrees

Right Shoulder ROM Impairment

Extension 1
Flexion 1
Abduction 1
Adduction 1
External Rotation 0
Internal Rotation 2
Total 6 UE
Right Shoulder Muscle Strength

Physician found

- Grade 4 flexion, abduction and adduction
- 25% strength deficit
- Motor impairment grade definitions and strength deficits per Table 16-11

Muscle Strength Impairment

**Muscle Strength**

- Flexion $24 \times 25\% = 6$ UE
- Extension
- Abduction $12 \times 25\% = 3$ UE
- Adduction $6 \times 25\% = 2$ UE
- Int rotation
- Ext rotation
- Total $= 11$ UE

Table 16-35: Impairment of the Upper Extremity Due to Strength Deficit From Musculoskeletal Disorders Based on Manual Muscle Testing of Individual Units of Motion of the Shoulder and Elbow
**Right Shoulder Impairment**

Muscle strength combined with ROM

11 C 6 = 16 UE = 10 WP

Right shoulder rating per physician

16.02.02.00 - 10 - [7]14 - 360G - 16 – 20

---

**Right Shoulder Impairment Questions**

What about the distal clavicle arthroplasty?

Can muscle strength impairment be combined with ROM impairment?
**Muscle Strength**

Cannot be rated if maximum strength prevented by

- Decreased motion
- Pain
- Amputation

---

**Muscle Strength Impairment**

- Cannot be combined with other impairments unless due to different
  - Etiologic cause
  - Patho-mechanical cause
Key to Strength Impairment

• Ask physician

• Cause of strength loss

• Then ask if AMA Guides page 508 preclusion apply

---

Knee Arthritis Impairment

| Table 17-31 Arthritis Impairments Based on Roentgenographically Determined Cartilage Intervals |
|---------------------------------------------------|-----------------------------------|
| Joint                                             | Cartilage Intervals               |
|                                                   | Whole Person (Lower Extremity) [Foot] Impairment (%) |
|                                                   | 2 mm | 2 mm | 1 mm | 0 mm |
| Sacroiliac (3 mm)*                                | —    | —    | 3 (7) | 2 (7) |
| Hip (4 mm)                                        | 3 (7) | 8 (20) | 10 (25) | 20 (50) |
| Knee (4 mm)                                       | 3 (7) | 8 (20) | 10 (25) | 20 (50) |
| Patellofemoral†                                    | —    | 4 (10) | 6 (15) | 8 (20) |
| Ankle (4 mm)                                      | 2 (5) [7] | 6 (15) [21] | 8 (20) [28] | 10 (25) [43] |
| Subtalar (3 mm)                                   | —    | 2 (5) | 7 (13) | 6 (15) [21] | 10 (25) [35] |
| Talonavicular (2-3 mm)                            | —    | —    | —    | 4 (10) [16] | 8 (20) [28] |
| Calcaneocuboid                                    | —    | —    | —    | 4 (10) [14] | 8 (20) [28] |
| First metatarsophalangeal                          | —    | —    | —    | 2 (5) | 7 (13) |
| Other metatarsophalangeal                          | —    | —    | —    | 1 (2) | 3 (7) |

* Normal cartilage intervals are given in parentheses.
† In an individual with a history of direct trauma, a complaint of patellofemoral pain, and corporatation on physical examination, but without joint space narrowing on x-rays, a 20% whole person or 5% lower extremity impairment is given.
Knee Arthritis Impairment

Patellofemoral DJD: 5 LE x 0.4 = 2 WP

Left Knee
17.05.03.00 – 2 – [2]2 – 360G – 3 – 4 PD

Right Knee
17.05.03.00 – 2 – [2]2 – 360G – 3 – 4 PD

DEU Consultative Rating Annotations

- Strength impairment cannot be rated in the presence of decreased motion or pain that prevents maximum application of force

- Strength cannot be combined with other impairments unless due to different etiologic or pathomechanical cause.

- Distal clavicle athroplasty not included in physician impairments
WCALJ Decision

- WCALJ issued decision for 56% PD
- Rating instructions grip loss rating for carpal tunnel
- Defense objected to grip loss inclusion

Formal Rating

Cervical
80% (15.01.02.02 – 18 – [5]23 – 360G – 26 – 32) 26 PD

Left arm
16.01.04.00 – 6 – [4]7 – 360G – 8 – 10 PD
16.02.01.00 – 5 – [7]7 – 360G – 8 – 10 PD
10 C 10 = 19 PD

Right Arm

Left Knee
17.05.03.00 – 2 – [2]2 – 360G – 3 – 4 PD

Right Knee
17.05.03.00 – 2 – [2]2 – 360G – 3 – 4 PD

(A) 26 C 20 C 19 C 4 C 4 = 56 Final PD
Possible Rating Issues

Applicant Side
• Multi-level cervical radiculopathy = DRE IV
• Right distal clavicle arthroplasty

Defense Side:
• Grip loss for carpal tunnel
• Both right shoulder muscle strength and ROM rated
• Use of ROM method for cervical spine

WCAB decision
• WCAB overturned judge
• PD 51% without grip
• Cited grip is rarely used per AMA Guides
• Physician rationale insufficient
Amended Rating

Cervical

Left arm
16.01.04.00 – 6 – [4]7 – 360G – 8 – 10 PD

Right Arm

Left Knee
17.05.03.00 – 2 – [2]2 – 360G – 3 – 4 PD

Right Knee
17.05.03.00 – 2 – [2]2 – 360G – 3 – 4 PD

(A) 26 C 20 C 10 C 1 C 4 C 4 = 51 Final PD

And the moral is....

- Almaraz/Guzman does not automatically remove AMA Guides limitations on strength impairment
- Physician rationale critical
- Ultimately a judicial decision
- A DEU consultative rating with annotations would have been helpful
## Physician Best Practices

- Provide standard AMA Guides rating
- Explain how standard rating arrived at
- Determine if accurate rating or explain why not
- Provide alternative rating if necessary
- Explain how alternative rating arrived at
- Stay within four corners of AMA Guides
- Provide rationale why this is accurate rating

## Questions