History of the *Guides*
Impairment – In Perspective

• Impairment, a “loss”, reflects failure to prevent an injury or illness and/or to restore function
• Goal is an accurate, unbiased assessment of impairment via efficient means – assuring valid and reliable definition
• The Sixth Edition uses the World Health Association (WHO) most current International Classification of Function (ICF) model and reflects the current standard; responding to opportunities for improvement from prior Editions.
• MMI is not based on future issues or problems
• Future issues and problems are a social question not a medical question
Cause of Erroneous Impairment Ratings

- Failure to Understand AMA Guides
- Bias – Treating Physician
- Bias – Evaluating Oriented
- Clinical Errors
- Causation Errors
- No Accountability

Erroneous Rating
Sixth Edition Responded to Prior Concerns

- The 6th Edition
  - Provides a comprehensive, valid, reliable, unbiased, and evidence-based rating system
  - Has internal consistency in approach across chapters and body systems
  - Incorporates principles consistent with clinical care (such as the premise that treatment – including surgery – should improve function)
  - Has demonstrated improved inter-rater reliability
- Medical care changes with time, as do the Guides
- *AMA Guides* 6th is an independent reproducible system
- Values will be similar to prior Editions, with exception of:
  - Joint Replacements (better functional results)
  - Soft Tissue Injuries without ratable criteria (in certain situations may result in mild rating)
- Magnitude of errors will be less
Sixth Edition Innovations

- Conceptual framework of International Classification of Functioning, Disability and Health
- Focus on Diagnosis-Based Impairments, with consideration of function, physical examination, and clinical studies- which is how physicians deliver care
Basis for Sixth Edition – the International Classification of Functioning, Disability and Health

Health Condition, Disorder or Disease

Activity

Participation

No Activity Limitation

Complete Activity Limitation

No Participation Restriction

Complete Participation Restriction

Contextual Factors

Body Functions and Structures

Normal Variation

Complete Impairment

Environmental

Personal

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Impact on Ratings

• Changes in rating values:
  – Providing impairment ratings for conditions not previously ratable, yet resulting in loss
  – Not providing additional impairment for surgery (and other therapies intended to improve function) and thus decrease impairment
  – Adjustments for improved results (i.e. joint replacements)
Sixth Edition Five Axioms

1. Adopt the terminology, definitions and conceptual framework of disablement put forward by the International Classification of Functioning, Disability and Health (ICF) (WHO, 2001) in place of the current and antiquated ICIDH terminology (WHO, 1980)

2. Become more evidence-based

3. Wherever/whenever evidence-based criteria are lacking, give highest priority to simplicity and ease of application

4. Stress conceptual and methodological congruity within and between organ system ratings

5. Provide rating percentages that are functionally-based whenever possible
Impairment Rating Considerations

1. What is the problem?
2. What difficulties are reported?
3. What are the exam findings?
4. What are the results of the clinical studies?
Diagnosis-Based Impairment Classes

- Class 0: No objective problem
- Class 1: Mild problem
- Class 2: Moderate problem
- Class 3: Severe problem
- Class 4: Very severe problem

Vast majority of impairment ratings are based on diagnosis-based impairments, with adjustments (as applicable) for function, physical examination and clinical studies.
## Sixth Edition: Summary

### Diagnosis-Based Impairment

<table>
<thead>
<tr>
<th>Diagnosis / Criteria</th>
<th>Grid</th>
<th>Class 0</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Table 17-6</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
</tbody>
</table>

### Adjustment Factors – Grade Modifiers

<table>
<thead>
<tr>
<th>Non-Key Factor</th>
<th>Grid</th>
<th>Grade Modifier 0</th>
<th>Grade Modifier 1</th>
<th>Grade Modifier 2</th>
<th>Grade Modifier 3</th>
<th>Grade Modifier 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional History</td>
<td>Table 17-6</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
<tr>
<td>Physical Exam</td>
<td>Table 17-7</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
<tr>
<td>Clinical Studies</td>
<td>Table 17-8</td>
<td>No problem</td>
<td>Mild problem</td>
<td>Moderate problem</td>
<td>Severe problem</td>
<td>Very severe problem</td>
</tr>
</tbody>
</table>
Concern / Perception  

- Sixth Edition has caused confusion and concern

Reality  

- Basis for concerns appears to be driven by lack of knowledge and
- Specific stakeholders:
  - Stakeholders reluctant to change from a system they are familiar with, and
  - Stakeholders who fear the values may be less and may favor approaches that are more ambiguous (resulting in more controversy and litigation).
Concern / Perception

• Stakeholders do not like the Sixth Edition

Reality

• Most stakeholders have not yet had an opportunity to learn the Sixth Edition, and therefore are biased opinions of certain stakeholders.
• Majority of physicians have a favorable opinion of the Sixth Edition.
## Physician Response to Sixth Edition

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>More reasonable impairment values</td>
<td>66%</td>
</tr>
<tr>
<td>Clearer process</td>
<td>62%</td>
</tr>
<tr>
<td>More internally consistent</td>
<td>62%</td>
</tr>
<tr>
<td>More reliable</td>
<td>59%</td>
</tr>
<tr>
<td>Errors Less Likely</td>
<td>52%</td>
</tr>
<tr>
<td>Easier to use</td>
<td>41%</td>
</tr>
<tr>
<td>Litigation Less Likely</td>
<td>28%</td>
</tr>
</tbody>
</table>
Concern / Perception

• The impairment values will be different.

Reality

• Impact not fully identified - no comprehensive study of impact of change in impairment rating values.

• Need to consider whether comparing to prior observed ratings or corrected ratings.

• Impairment ratings follow precedent unless reason for change (different outcomes, erroneous approaches).

• Common conditions not previously ratable may be ratable in certain situations (i.e. soft tissue, typically 1% - 3%).

• Surgery itself typically does not increase impairment, rather focus is on outcome.

• Fifth Edition contained aberrant rating values.
## Spine Rating—Typical Case Examples WPI

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Third Rev.</th>
<th>Fourth</th>
<th>Sixth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-specific cervical (neck) pain</td>
<td>0% or 5% (<em>&amp; ROM¹</em>)</td>
<td>0% or 5%</td>
<td>1% - 3%</td>
</tr>
<tr>
<td>Cervical radiculopathy with fusion (resolved radiculopathy)</td>
<td>7% or 9% (<em>&amp; ROM¹</em>)</td>
<td>15% or 5%</td>
<td>4 - 8%</td>
</tr>
<tr>
<td>Lumbar radiculopathy (single level, persistent) – non-surgical</td>
<td>11% (*&amp; ROM¹²)</td>
<td>10%</td>
<td>10% - 14%</td>
</tr>
<tr>
<td>Lumbar pain with single level fusion (no radiculopathy)</td>
<td>8% of 10% (*&amp; ROM¹)</td>
<td>5%</td>
<td>5% - 9%</td>
</tr>
<tr>
<td>Lumbar pain with single-level fusion (with persistent single level radiculopathy)</td>
<td>12% (*&amp; ROM¹²)</td>
<td>10%</td>
<td>10% - 14%</td>
</tr>
<tr>
<td>Lumbar pain with multi-level fusion (no radiculopathy)</td>
<td>10% (*&amp; ROM¹)</td>
<td>5%</td>
<td>5% - 9%</td>
</tr>
<tr>
<td>Lumbar radiculopathy with fusion (persistent single level radiculopathy)</td>
<td>12% (*&amp; ROM¹²)</td>
<td>10%</td>
<td>10% - 14%</td>
</tr>
<tr>
<td>Average (assume ½ of non-specific have ratable findings and mid-range values)</td>
<td>9%</td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>

1. Third Ed. Revised Spinal ratings per Table 53 Specific Disorders, combined with range of motion (ROM) deficits, if any. Note subsequently spinal ROM was determined to lack validity and reliability as a basis to determine impairment.

2. Neurological deficits per Tables 49, 10 and 11. Assuming hypothetical resulting in 2% WP, this is incorporated into rating value, i.e. Table 53 value is 2% WP less.
## Extremity Rating–Typical Case Ex. WPI

<table>
<thead>
<tr>
<th>Condition</th>
<th>Third Rev.</th>
<th>Fourth</th>
<th>Sixth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digit Amputation – Index at DIP joint</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Wrist Fracture – residual symptoms and objective findings and/or functional loss with normal motion</td>
<td>0%</td>
<td>0%</td>
<td>1% - 3%</td>
</tr>
<tr>
<td>Wrist Fracture – lack of 20 degrees flexion and of 20 degrees extension</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Lateral Epicondylitis – residual symptoms without consistent objective findings</td>
<td>0%</td>
<td>0%</td>
<td>0% - 1%</td>
</tr>
<tr>
<td>Impingement Syndrome – residual loss, functional with normal motion</td>
<td>0%</td>
<td>0%</td>
<td>1% - 3%</td>
</tr>
<tr>
<td>Carpal Tunnel Syndrome - confirmed, s/p release, symptoms and no objective findings</td>
<td>0%</td>
<td>0%</td>
<td>0% - 2%</td>
</tr>
<tr>
<td>Partial Medial Meniscectomy - symptoms, normal exam)</td>
<td>0 – 4%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Partial Medial Meniscectomy - symptoms, normal exam)</td>
<td>&amp; ROM (if any)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knee Arthritis – moderate, 2 mm cartilage interval</td>
<td>0 – 8%</td>
<td>8%</td>
<td>6% - 10%</td>
</tr>
<tr>
<td>Knee Arthritis – moderate, 2 mm cartilage interval</td>
<td>&amp; ROM (if any)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s/p Total Knee Replacement – fair result</td>
<td>8%</td>
<td>20%</td>
<td>12% - 17%</td>
</tr>
<tr>
<td><strong>Average (based on mid-range for Third Rev., exclusive of ROM deficits)</strong></td>
<td>3%</td>
<td>4%</td>
<td>4%</td>
</tr>
</tbody>
</table>
Concern / Perception

• The error rate will be higher.

Reality

• Observations to date do not support this conclusion.
• Following errors common with the Third Revised, Fourth and Fifth Editions will not occur with the Sixth:
  – Rating for strength loss (grip or clinical)
  – Rating for subjective complaints in addition to the musculoskeletal rating (i.e. pain, sex and sleep)
  – Confusion with spine whether to rate on the basis of Diagnosis Related Estimate or Range of Motion
Concern / Perception

• The impairment rating values in the Sixth Edition are not evidence based.

• Evaluation process is more complex and time-consuming

Reality

• Consensus is a form of evidence. Impairment ratings reflect the consensus of experienced physicians using a modified Delphi panel approach to achieve consensus.

• Diagnoses, the primary basis for defining impairment, should be evidence-based.

• The approaches used are consistent among most chapters; therefore, once learn approach easily applied to other chapters.

• Reports by actual users is once have become familiar with approach (usually 10 cases), it is simpler.
Concern / Perception

• There will be more disagreement over the final impairment rating.

• Psychiatric impairment ratings will be problematic.

Reality

• Majority of ratings per earlier Editions were incorrectly performed.

• Probable there will be agreement in the vast majority of the cases to class assignment and differences will be to the adjustments which have smaller impact on final rating.

• Prior Editions provided no basis to quantify psychiatric impairment.

• Jurisdictions can determine whether psychiatric impairment is rated.

• Psychiatric quantitative impairment ratings will be rare.
Concern / Perception  Reality

• Deposition and medicolegal costs will increase.

• The design of the Sixth Edition is to reduce the problems of poor inter-rater reliability, i.e. it is less likely there will be significant differences in ratings.

• The Sixth Edition is more transparent in its approach and does not have the extent of ambiguity associated with prior Editions.
Concern / Perception

• Ratings by the Sixth Edition would require more medical testing, such as MRIs and electrodiagnostic testing

Reality

• In the vast majority of cases a diagnosis has already been established and further testing is not required.
• MRI imaging of the spine is not required for defining impairment and findings on imaging may have no relationship to complaints of spinal pain.
• Treatment guidelines for carpal tunnel syndrome require electrodiagnostic testing prior to surgical release.
Concern / Perception

• Treating physicians will have difficulties learning and using a new Edition.

Reality

• Physicians who do not perform impairment evaluations on a frequent basis are less likely to be familiar with the appropriate use of the Guides.
• Treating physicians must serve as patient advocates and therefore have difficulty providing an unbiased assessment of impairment.
• Training is easier in the 6th edition compared with prior editions.
Concern / Perception  Reality

• Extensive training is required.

• As with any new concepts (including medicine and law), ongoing learning is required.

• Working knowledge of the Guides can be grasped more quickly with the Sixth Edition than earlier Editions – typically in less than a day of training.

• AMA has developed a variety of companion books to help physicians train on the AMA Guides 6th. In addition the AMA works very closely with the state medical societies to set up a training schedule for the entire state and all of those involved with impairment ratings.
Concern / Perception

• Physicians involved in the development of the Guides will profit from sales, the rating values provided, and training required to learn how to use the Sixth Edition.

Reality

• The Section and Contributing Editors, Contributors, and Reviewers were volunteers.
• None of the Editors are employed by insurers, major corporations, or law firms.
• Much of the training provided by physicians is done so on a voluntary basis. When training is provided for a fee, after consideration of the time involved in developing materials and providing training, the income is minimal.
Concern / Perception

• Sixth Edition is difficult to use due to need to reference Corrections and Clarifications

• There was a more rapid reaction to the Sixth Edition, than there was to prior Editions.

Reality

• Sixth Edition is now in Second Printing with all Corrections and Clarifications incorporated.

• Electronic version currently available as a downloadable e-book.

• The internet is much more widely used for rapid dissemination of news and discussion now, compared to when the Fifth Edition was released (2000), the Fourth Edition was released (1993) and the Third Edition was released (1988)
Concern / Perception  Reality

• It is perfectly acceptable to use earlier Editions to assess impairment

• Is it acceptable to diagnose and treat a patient by an outdated textbook, particularly when it has now been shown that prior approaches were less than optimal?
Future

• Refinement of approaches piloted in the Sixth Edition
• Use of best practice approaches and guidelines which are evidence based
• Recognition and management of root causes for erroneous ratings – and ultimately needless impairment and disability (with associated human and financial costs)
• Recognition and promotion of human potential rather than focus on deficits
• Changes in incentives to drive changes in behavior
• Accountability of all stakeholders
• Transformation of the workers compensation and disability field – to focus on empowerment and not disablement.
Who is Currently Using the AMA Guides 6th

- Alaska
- Arizona
- Connecticut*
- District of Columbia
- Indiana**
- Illinois
- Louisiana
- Mississippi
- Montana
- New Mexico
- North Dakota
- Oklahoma
- Pennsylvania
- Puerto Rico
- Rhode Island
- Tennessee
- Wyoming

- The Department of Labor’s Division of Federal Employees’ Compensation Act
- Longshore and Harbor Workers’ Compensation Act
- **Canadian provinces**
  - Alberta
  - British Columbia
  - Manitoba
  - New Brunswick
  - Newfoundland and Labrador
  - Nova Scotia
  - Ontario
  - Prince Edward Island
  - Quebec
- **International**
  - Australia
  - Hong Kong
  - Korea
  - New Zealand
  - South Africa
  - The Netherlands

* The state of Connecticut allows the use of the Fourth, Fifth and Sixth editions of the AMA, Guides. However, the Connecticut State Medical Society recommends the use of the most recent edition.

** The use of the AMA Guides in Indiana is not required, but using the most current edition of the Guides is recommended by the state.
Organizations that conduct AMA Guides training

• AMA
• AAOS
• AADEP
• ABIME
• ACOEM