



## Work Loss Data Institute

“The Evidence-Based Guideline Company”  
[www.worklossdata.com](http://www.worklossdata.com)

# Methodology Outline

## [Treatment Guidelines](#)

## [Return-to-Work Guidelines](#)

### **Official Disability Guidelines ODG Treatment in Workers’ Comp (ODG/TWC) Development/Update/Review Process Followed by Work Loss Data Institute**

#### **Comprehensive Medical Literature Review**

- Preference given to high quality systematic reviews, meta-analyses, and clinical trials published since 1993
- Nationally recognized treatment guidelines from the leading specialty societies
- Primary searches: MEDLINE and the Cochrane Library

#### **Review of Other Relevant Treatment Guidelines**

- National Guideline Clearinghouse entries
- State Guidelines
- Proprietary guidelines maintained in the WLDI guideline library

(Note: These guidelines were also used to suggest references or search terms that may otherwise have been missed).

#### **Extensive Search of Additional Data Bases**

- MD Consult; eMedicine; CINAHL
- Conference proceedings in occupational health and musculoskeletal medicine (i.e. ACOEM, AAOS, AAPM)
- Conference proceedings in Disability Evaluation (i.e. AADEP, EUMASS).

(Note: Search terms and questions were diagnosis, treatment, symptom, sign, and/or body-part driven, generated based on new or previously indexed existing evidence, treatment parameters and experience).

Chapter-specific reference lists are found within *ODG/TWC*

### **Criteria for Selecting the Evidence**

Preference was given to evidence that met the following criteria:

- The article was written in the English language, and the article had any of the following attributes:
  - It was a systematic review of the relevant medical literature; or
  - The article reported a controlled trial – randomized or controlled; or
  - The article reports a cohort study, whether prospective or retrospective; or
  - The article reports a case control series involving at least 25 subjects in which the assessment of outcome was determined by a person or entity independent from the persons or institution that performed the intervention the outcome of which is being assessed.

(Note: Especially when articles on a specific topic that met the above criteria were limited in number and quality, Work Loss Data Institute also reviewed other articles that did not meet the above criteria, but all evidence was ranked alphanumerically using the methodology in the [second chapter of ODG Treatment](#) so that the quality of evidence could be clearly weighted and taken into consideration when formulating recommendations. This ranking used an alphanumeric rating system ranging from 1a to 10c, based on Ranking by Type of Evidence: (1) Systematic Review/Meta-Analysis, (2) Controlled Trial - Randomized (RCT) or Controlled, (3) Cohort Study - Prospective or Retrospective, (4) Case Control Series, (5) Unstructured Review, (6) Nationally Recognized Treatment Guideline (from guidelines.gov), (7) State/Other Treatment Guideline, (8) Foreign Treatment Guideline, (9) Textbook, or (10) Conference Proceedings/Presentation Slides; and also Ranking by Quality within Type of Evidence: (a) High Quality, (b) Medium Quality, or (c) Low Quality, as defined in the [Ranking by Quality](#) section of the second chapter.

### **Ongoing Updates**

The literature search is repeated for every chapter of ODG Treatment at least every six months, and for major chapters at least quarterly.

### **Process Used for Formulating the Recommendations**

Link between evidence and recommendations:

- The Procedure Summary of ODG/TWC provides a concise synopsis of effectiveness, if any, of each treatment method based on existing medical evidence.
- Each summary and subsequent recommendation is hyper-linked into the studies on which they are based, in abstract form, which have been ranked, highlighted and indexed and may be copied and pasted to quote specifically, if desired.
- The Treatment Protocol identifies the ideal utilization plans that should be followed after illness or injury, based on the recommendations in the Procedure Summary.
- Codes for Automated-Approval map CPT codes to ICD-9 codes based on the Treatment Protocol, with a field for “maximum occurrences”, for auto-approval of medical bills that meet the guideline. (Note: This process to translate the evidence into specific auto-authorization protocols is unique, for pre-approval of treatment plans and triage of utilization management. For those treatments that do

not meet the recommended Treatment Protocol, the Procedure Summary lists all potential therapies and indicates a summary as to their effectiveness, as well as why they may not be recommended based on the evidence.) This process is detailed below:

- o *ODG Treatment in Workers' Comp* is being updated monthly on the Web. From the Contents page the last date updated for each chapter is identified. There is a hard copy version once a year, but this is not recommended since it does not link into the actual studies, and it is not current.
- o The heart of each chapter in *ODG Treatment in Workers' Comp* is the "Procedure Summary", which provides a summary of effectiveness, if any, based on existing medical evidence, hyper-linked directly into the studies on which they are based, in abstract form, which have been ranked, highlighted and indexed. The "Treatment Protocol" identifies the ideal treatment pathway that should be followed, based on the "Procedure Summary". "Codes for Automated-Approval" links CPT procedure codes to ICD-9 diagnosis codes based on the ideal treatment protocol, with a field for "maximum occurrences", for auto-approval of charges that meet the guideline.
- o For example, in the Low Back chapter, under Fusion, it says, "There is no good evidence from controlled trials that spinal fusion is effective for treatment of any type of low back problem, in the absence of spinal fracture or dislocation, or spondylolisthesis..." so the Treatment Protocol does not include fusion. Same for IDET, facet injections, etc., etc. Under Epidural injections, it says, "Although epidural injections of steroids may afford short-term improvement in leg pain and sensory deficits in patients with sciatica due to a herniated nucleus pulposus, this treatment offers no significant long-term functional benefit, and the number of injections should be limited to two", so the Treatment Protocol for "With Radiculopathy" includes 2 ESIs, and the Codes for Auto Approval includes CPT code 62311 (Epidural steroid injection) 2 times for ICD9 722.x (Intervertebral disc disorders), but not for ICD9 847.2 (Lumbar sprain).
- o This effort to translate the evidence into specific auto-authorization protocols is unique, for pre-approval of treatment plans and triage of claims management. Of course, most cases will not meet this ideal protocol, and that is where the many other listings in the Procedure Summary come into play.
- In addition to an extensive internal editorial staff, WLDI retains doctors who are leaders in their fields to act as chapter leads on a compensated basis. WLDI is in the business of publishing evidence based medical guidelines, and does not rely solely on volunteer contributors, as do many medical specialty guidelines. Unlike volunteers who may have other priorities, these WLDI editors are incentivized to focus their efforts on one objective – creating the highest quality guideline.
- As new studies become available from peer-reviewed medical journals, they are ranked and weighted accordingly based on the WLDI evidence-ranking system: <http://www.disabilitydurations.com/ExplanationofMedicalLiteratureRatings.htm>
- New studies are referenced in the guidelines as they are published. If studies suggest changes in guideline recommendations, these are approved by appropriate medical chapter leads. See the [ODG Editorial Advisory Board](#).

- Potential impact on the recommendations is first outlined and summarized by internal medical editorial staff, then forwarded on for internal audit by the respective chapter leads (doctors who are leaders in the field working on a compensated basis) who draft any changes.
- Many, but not all, of the ODG contributors are listed on the ODG Editorial Advisory Board. Of those 80-90 doctors on the Board, an increasing number are working for WLDI on a compensated basis, especially the current chapter leads, so WLDI can have more demand on their time, but others still make substantial contributions only on an honorary basis, because that is the way they prefer to work. Also, increasingly in recent years, WLDI receives editorial input from many others who are not listed on the board. These contributors include ODG subscribers, state jurisdictional representatives, medical specialty societies, and product companies. The most common source has been ODG subscribers since WLDI encourages Helpdesk comments/suggestions/questions. These people are not listed on the ODG Editorial Advisory Board, either because they never asked to be, or because they felt there may be an appearance of a conflict (for example, large clients of ODG, state decision-makers, manufacturers, etc.). ODG represents all medical specialties since WLDI looks at all evidence for all specialties, and WLDI receives input from all specialties, including specialties that may not be represented on the ODG Editorial Advisory Board.

#### **Other Considerations in Formulating the Recommendations**

- Health Benefits (long and short term)
- Side effects
- Risks
- Restoration of function

(Note: Restoration of function is a driving force for many recommendations, because as the evidence indicates, it is associated with pain relief, health benefits, quality of life, patient satisfaction and limited risk.)

#### **Review by Experts**

- Prior to publication, members of the ODG Editorial Advisory Board as well as select organizations and individuals making up a cross-section of medical specialties and typical end-users externally review *ODG Treatment in Workers Comp*. This same review process is continued on an annual basis.
- ODG has met the stringent criteria of the Federal Agency for Healthcare Research & Quality (AHRQ), and has been accepted for inclusion in the National Guidelines Clearinghouse (NGC), located at [www.guidelines.gov](http://www.guidelines.gov). For a listing of guidelines accepted, go to: [http://www.guideline.gov/browse/DisplayOrganization.aspx?org\\_id=1316](http://www.guideline.gov/browse/DisplayOrganization.aspx?org_id=1316)

#### **Provider Feedback**

- Medical providers support these guidelines because they will know up front that they will get paid for treatments consistent with the guidelines, and the recommendations in ODG lack ambiguity and eliminate the need for any delay in treating injured workers.

- Medical providers are comfortable with ODG, because the publisher, Work Loss Data Institute, is independent of any single provider group, representing all medical specialties.
- ODG is clearly evidence-based, with conclusions linked to the related medical studies, which are provided in abstract form, highlighted, rated and indexed.
- ODG is continuously updated reflecting the findings of new studies as they are conducted and published in peer-reviewed journals.
- After adoption by workers' compensation jurisdictions in several other states, ODG has shown proven results that benefit all stakeholders.

#### **Use of the WLDI analysis of medical studies by other Treatment Guidelines**

- The ODG Treatment Evidence Base, including WLDI's review and summaries of studies in abstract form, which have been ranked, highlighted and indexed, were provided under contract to the American College of Occupational and Environmental Medicine on April 15, 2002, as the medical evidence base used in creating the ACOEM Practice Guidelines, 2<sup>nd</sup> Edition, published in December 2003. Note: While the studies were provided by WLDI, the recommendations in the ACOEM Practice Guidelines were authored by ACOEM, and not WLDI.
- Also provided under contract to the Council on Chiropractic Guidelines and Practice Parameters (CCGPP) on June 19, 2004, as the medical evidence base to be used in creating the CCGPP Best Practices For Chiropractic, to be published in January 2007. Note: While the studies were provided by WLDI, the recommendations in the CCGPP Guidelines will be authored by CCGPP, and not WLDI.

**Official Disability Guidelines (ODG)  
Return-to-Work Guidelines  
Development/Update/Review Process  
Followed by  
Work Loss Data Institute**

**Evidence-Based Methodology**

- *Official Disability Guidelines* is based on actual reported data from the annual CDC National Health Interview Survey (NHIS), the BLS Survey of Occupational Injuries and Illnesses (SOII), and over 2 million medical records from actual workers' compensation claims. This includes actual observed case data - rather than government survey "patient recollection" data. All data is tracked by ICD-9-CM code and not just general body part.
  - NHIS is one of the oldest, most respected national health surveys in the U.S., in continuous operation since July of 1957 and the principle data collection program for the National Center for Health Statistics under the CDC.
  - NHIS data are used widely throughout the Department of Health and Human Services to monitor trends in illness and disability, and both the public and private health research communities for epidemiological data analysis.
  - The Bureau of the Census under a contractual agreement is the NHIS data collection agent.
  - NHIS uses about 400 interviewers, trained and directed by health survey supervisors in each of the 12 Bureau of the Census Regional Offices. The supervisors are career Civil Service employees whose primary responsibility is NHIS.
  - The personal household interviewers are selected through an examination and testing process, receiving thorough training in interviewing procedures and concepts and procedures unique to NHIS. The questionnaire is conducted using a computer assisted personal interviewer (CAPI), administered using a laptop computer where interviewers enter responses directly into the computer during the interview, which offers distinct advantages in terms of timeliness of the data and improved data quality.
  - SOII is a Federal/State program in which employer's reports are collected annually from over 176,000 private industry establishments and processed by State agencies cooperating with the Bureau of Labor Statistics.
  - SOII serves to track epidemiological records, trends and statistics on occupational safety & health, especially time away from work due to illness/injury.
  - Summary information on the number of injuries and illnesses is copied directly from employer record keeping logs to the survey questionnaire.
  - Injuries/illnesses logged by employers conform to definitions and record keeping guidelines set by OSHA, U.S. Dept of Labor.
  - Employers keep separate counts by type of injury or illness and also identify and quantify for each whether a case involved days away from work or days

of restricted work activity, or both, beyond the date of injury or onset of illness.

- Note: A recent study has suggested that the Bureau of Labor Statistics undercounts the number of illnesses and injuries that occur in U.S. workplaces each year, largely as a result of underreporting by employers. While of concern, this should not impact the disability duration data in ODG, as outlined below:
  - Any possible undercounting will not effect expected duration on a per-injury basis, which is how the OSHA data is utilized in ODG.
  - The undercounting is an important safety issue, not a disability duration issue. WLDI uses OSHA data (among other sources including client claims data and the CDC) to estimate expected disability duration for each condition on a per-injury basis. ODG is not using this data to gauge workplace safety (the likelihood of an injury).
  - Undercounting does not affect expected time away from work on a per-injury basis, although it does make workplaces appear safer than they are in reality. For example, whether you have 246,000 back strains or twice that, the average duration would likely be the same.
  - This undercounting would affect all sources of data. If employers are hiding injuries from OSHA (to keep insurance premiums down), then they are also hiding these injuries from their workers' comp insurance carriers. Therefore any disability duration database based on claims data would also be undercounting.
- Since 2003 all of the ODG disability duration data has been validated and enhanced by actual client claims data, and this is reflected in the Return-To-Work Summary Guidelines (Claims data Midrange and At-Risk) as well as the Return-To-Work "Best Practice" Guidelines, the RTW Claims Data (Calendar-days away from work by decile), and the RTW Post Surgery (Calendar-days away from work by decile).

(Note: Survey instruments were chosen for use as part of the ODG database because they are population-based and appropriately stratified, and therefore not restricted to any single or limited subdivision available from private claims entities. Furthermore, SOII and NHIS are the most credible and comprehensive workforce health survey instruments available, containing a wealth of information on time away from work due to illness and injury. They are referred to as “the most direct form of evidence that can be offered in court” under the newly revised Federal Rules of Evidence. The result is that ODG is independent, fair and defensible.

- *Official Disability Guidelines* also includes client data, based on almost 2 million claims from WLDI’s multi-year multi-state workers comp database, covering almost 50 million paid invoices on medical encounters for those claims. These medical costs represent a total of \$10.0 billion dollars in actual incurred costs, and the indemnity costs represent a total of \$7.2 billion dollars in actual incurred costs, for a total of over \$17 billion of workers’ compensation costs, and they are presented in the table, entitled “Workers' Comp Costs per Claim.”

## Reach

- The ODG product line is used in all 50 states and internationally by over 30,000 of the world's best and brightest (employers, insurers, TPA's, healthcare providers and state & federal workers' compensation authorities), who are realizing the immense benefits in taking evidence-based medicine to its logical endpoint by using ODG to effectively manage utilization and return-to-work following illness and injury.

## Use of the ODG Disability Duration data by other Guideline Publishers

- In 2003 Guidelines Committee members of the American College of Occupational and Environmental Medicine (ACOEM) decided to incorporate normative disability duration data from ODG in the 2<sup>nd</sup> edition of the ACOEM Practice Guidelines, published in December 2003. This is the only return-to-work disability duration data from an external source that is contained in the ACOEM Practice Guidelines.
- In early 2004, after an extensive evaluation, McKesson Health Solutions entered into an agreement with Work Loss Data Institute whereby ODG would provide all of the disability duration data in the McKesson InterQual treatment guidelines. Prior to this the McKesson Guidelines had an agreement with the Medical Disability Advisor.

## A Supplemental Outline: ODG Background, Features & Major Advantages

- *Annually Updated.* First edition of Official Disability Guidelines (ODG) released in 1996; now in its 11<sup>th</sup> edition
- *Evidence-Based* - disability duration norms from actual experience data from federal government databases, including OSHA BLS (Occupational Safety and Health Administration – Bureau of Labor Statistics) Survey of Occupational Injuries and Illnesses and CDC NCHS (Centers for Disease Control and Prevention, National Center for Health Statistics) National Health Interview Survey.
- *Covers Every Reportable Condition*, all 10,000 ICD9 codes (including those seen in workers' comp, STD, LTD, sick leave, auto-liability, etc).
- *Designed to enhance a timely and appropriate return-to-work* for workers suffering from illness or injury. ODG allows for the systematic determination of appropriate disability duration for each case within a condition based on key indicators of severity, treatment and job
- *Fair to employees and defensible by management.* The raw data from CDC and OSHA is interpreted for end-users in the Summary and Best Practice Guidelines, and remains in graphical form as supportive documentation, where it is referred to as “the most direct form of evidence that can be offered in court” under the Federal Rules of Evidence as amended in December 2000.

- *Reviewed by the ODG Editorial Advisory Board.* Updated and fine-tuned annually based on review of new and existing data from CDC and OSHA, along with the experience of over 80 of the most revered professionals in occupational health and disability medicine, including current Senior Medical Editor, Charles W. Kennedy Jr. MD, a founding member of the Evidence-Analysis Committee for the American Academy of Orthopaedic Surgeons and a member of the Board of Directors of the American Academy of Disability Evaluating Physicians.
- *ODG Allows Benchmarking Against National Norms* using the ODG Summary Guidelines, which are available for virtually every reportable condition. These benchmarking methods (including “Grading RTW 101” & “Outlier Percentage”) have become the standard for employers and their vendors, as a way to compare outcomes to national data on a consistent basis.
- *ODG includes* Descriptions; Links to other resources (i.e. State Guidelines, Merck Manual, etc); Physical Therapy and Chiropractic Guidelines; Decile Tables for Benchmarking; Age Adjustment Multipliers; and Causality Indicators for determining work-relatedness
- *Integrated with ODG Treatment Guidelines*
- *ODG uses the term "At-Risk"* because that disability duration is employed by ODG clients to trigger treatment plans, and "Midrange" or median or average is used to set normative expectations. (ODG does not use the terms "Optimum" or "Maximum", since “Maximum” would be too late to trigger anything, and the term “Optimum” does not encourage acceptance by injured workers as a norm.)
- *ODG identifies procedure disability durations within the diagnosis* (in the Return-To-Work "Best Practice" Guidelines pathways), because the expected length of disability also depends on the diagnosis that the procedure is attempting to cure. For example, the expected RTW in ODG after spinal fusion for lumbar disc disorder and manual work is 140 days, but after spinal fusion for cervical disc disorder and manual work it is 77 days in ODG, a big difference.
- *ODG is the most commonly used RTW guideline.* As far as prevalence of use within Texas, ROC did a survey in July 2003 called, "Return-to-Work Related Communications: Employer, Health Care Provider, and Insurance Carrier Perspectives," that showed that twice as many providers in Texas were using ODG RTW guidelines compared to any other RTW guideline at that time (and ODG has grown more rapidly since then). See Table 10, "Percentage of Health Care Providers Using Disability Duration Guidelines" on page 36 of the report accessible on TDI’s Website, where it shows that 3% of Texas providers were using the MDA and 6% were using ODG.  
<http://www.tdi.state.tx.us/wc/regulation/roc/pdf/rtwreport.pdf>
- *New ODG includes workers’ compensation cost data* based on almost 2 million claims from WLDI’s multi-year multi-state workers comp database, and it covers almost 50 million paid invoices on medical encounters for those claims.