Sickness absence and return to work guidelines: the U.S. experience.

George L. Delclos, MD, MPH, PhD
Fernando G. Benavides, MD, PhD
Objectives

• To provide a comparative overview of 3 resources frequently used in the U.S. by clinicians and case managers to guide the management of sickness absence:
  • Official Disability Guidelines (Work Loss Data Institute)
  • Medical Disability Guidelines (Reed Group)
  • Occupational Medicine Practice Guidelines (American College of Occupational and Environmental Medicine)

• For use in:
  • anticipated time to return to work
  • evidence-based treatment
  • work modifications
Workers’ Compensation in the U.S.

- Covers only work-related illness and injury
- Covers medical costs and wage replacement
- State-based (optional in some, e.g., Texas)
- Privately funded
- Separate from health insurance and social security
- Any physician can choose to participate (or not)
- Occupational>>non-occupational costs
- Great variability in medical practice and costs
Treatment Varies State by State

Ratio of Total Rates of Spine Surgery to the U.S. Average by Hospital Referral Region (2002-03)


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Guidelines

• Official Disability Guidelines (Work Loss Institute) – “ODG”

• Medical Disability Guidelines (Reed Group) “MDGuidelines”

• Occupational Medicine Practice Guidelines (American College of Occupational and Environmental Medicine)
Guidelines

• Purpose:
  – Limit overutilization
  – Improve underutilization
  – Accelerate return to work

• Designed for multiple users (physicians, payors, utilization review, etc.)

• All are evidence-based

• Can be used for work-related and non work-related illness and injury

• States can require their use (work-related)

• All 3 evaluated with the Appraisal of Guidelines Research Evaluation (AGREE) instrument
Legislative Landscape

Green shades indicate individually state developed. Bold outline indicates current legislative activity.
Official Disability Guidelines

**ODG: Good to Go!** (link to complimentary online self training tool)

Integrated with Treatment Guidelines (ODG Treatment in Workers’ Comp, 9th edition)
(Click on picture of books below to enter site)
ODG Data Sources

- ICD-9-CM (International Classification of Diseases, 9th Revision, Clinical Modification)
- CDC NCHS NHIS (National Health Interview Survey)
- HCUP (Healthcare Cost and Utilization Project)
Official Disability Guidelines

ODG Treatment

CONTENTS

Background & Description

Explanation of Medical Literature Ratings

Ankle & Foot (updated 06/24/08)

Burns (updated 01/02/08)

Carpal Tunnel Syndrome (updated 05/19/08)

Elbow (updated 06/30/08)

Eye (updated 01/03/08)

Fitness for Duty (updated 12/3/06)

Forearm, Wrist, & Hand (updated 06/30/08)
The key is to understand what everything means, or “how it is defined”.

Source: Official Disability Guidelines/Work Loss Institute
### RTW Summary Guidelines

**Minimum** = Always Zero

**Midrange Dates** = Expected Range

**At-Risk Dates** = Red Flag / Maximum

#### 847.2 Lumbar sprains and strains

<table>
<thead>
<tr>
<th>Dataset</th>
<th>Minimum</th>
<th>Midrange</th>
<th>At-Risk</th>
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<tbody>
<tr>
<td>Claims data</td>
<td>9 days</td>
<td>47 days</td>
<td></td>
</tr>
<tr>
<td>All absences</td>
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**Return-To-Work "Best Practice" Guidelines**
- Mild, clerical/modified work: 0 days
- Mild, manual work: 10 days
- Severe, clerical/modified work: 0-3 days
- Severe, manual work: 14-17 days
- Severe, heavy manual work: 35 days
- With radicular signs, see 722.1 (disc disorders)

Obesity comorbidity (BMI >= 30), multiply by: 1.31

**Capabilities & Activity Modifications for Restricted Work:**
- Clerical/modified work: Lifting with knees (with a straight back, no stooping) not more than 5 lbs up to 3 times/hr; squatting up to 4 times/hr; standing or walking with a 5-minute break at least every 20 minutes; sitting with a 5-minute break every 30 minutes; no extremes of extension or flexion; no extremes of twisting; no climbing ladders; driving car only up to 2 hrs/day

Source: Official Disability Guidelines/Work Loss Institute
RTW Best Practice Guidelines

847.2 Lumbar sprains and strains

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**Manual work:** Lifting with knees (with a straight back) not more than 25 lbs up to 15 times/hr; squatting up to 16 times/hr; standing or walking with a 10-minute break at least every 1-2 hours; sitting with a 10-minute break every 1-2 hours; extremes of flexion or extension allowed up to 12 times/hr; extremes of twisting allowed up to 16 times/hr; climbing ladders allowed up to 25 runs 6 times/hr; driving car or light truck up to a full work day; driving heavy truck up to 4 hrs/day.

**Description:** Injury to the ligament (sprain) or to the muscle (strain) of the lower back. Sprains and strains are usually accompanied by a tearing of the tissue as well as symptoms of pain, limited motion, swelling, bruising, and/or a change in

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Source: Official Disability Guidelines/Work Loss Institute
Other Features

- Direct link to ODG Treatment Index.
- Link to other sources (Merck, State Guidelines, etc.).
- Causality Likelihood (percent of claims that are work-related).
- Average Hospital Costs and Length of Stay (for cases admitted to hospital).
- Physical Therapy and Chiropractic Guidelines (frequency and duration of care).
- Workers’ Compensation Costs (medical, indemnity and total costs at each quartile, with means).

Source: Official Disability Guidelines/Work Loss Institute
Other Features (cont.)

Age Adjustment Factors (multipliers that can be used to adjust the Summary and Best Practice Guidelines)

Source: Official Disability Guidelines/Work Loss Institute
### Procedure Summary – Low Back

<table>
<thead>
<tr>
<th>Procedure/topic</th>
<th>Summary of medical evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acupuncture</strong></td>
<td>Not recommended for acute low back pain. <em>(Tulder-Cochrane, 2000)</em> <em>(Furlan-Cochrane, 2005)</em> Recommended as an option for chronic low back pain using a short course of treatment in conjunction with other interventions. <em>(See the Pain Chapter.)</em> Acupuncture has been found to be more effective than no treatment for short-term pain relief in chronic low back pain, but the evidence for acute back pain does not support its use. <em>(Furlan-Cochrane, 2005)</em> <em>(Manheimer, 2005)</em> <em>(van Tulder, 2005)</em> <em>(Thomas, 2005)</em> <em>(Ratcliffe, 2006)</em> <em>(Thomas, 2006)</em> <em>(Haake, 2007)</em> These authors have reported that acupuncture provides a greater effect than sham treatment, while others have reported non-significant differences between the two modalities. <em>(Brinkhaus, 2006)</em> In this latter case, both modalities were shown to be more effective than no treatment. <em>(Haake, 2007)</em> Acupuncture has not been found to be better than other treatment (either conventional or alternative) in terms of pain or function. Acupuncture has been shown to add to the treatment effect of conventional therapy (improving pain and function) when compared to conventional therapy alone. <em>(van Tulder, 2005)</em> <em>(Manheimer, 2005)</em> <em>(Furlan-Cochrane, 2005)</em> Overall outcomes from trials have been mixed, with some lower-quality trials producing positive results, but trials with higher validity scores tending to be negative or inconclusive. There is a tendency for patient expectations to influence the outcome independently of the treatment itself. <em>(Tulder-Cochrane, 2000)</em> <em>(Cherkin, 2001)</em> <em>(van Tulder-Spine, 1999)</em> <em>(Smith, 2000)</em> <em>(Cherkin, 2001)</em> <em>(Bitton, 2002)</em> <em>(Ruff, 2002)</em> <em>(Haake, 2007)</em></td>
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Source: Official Disability Guidelines/Work Loss Institute
Explanation of Medical Literature Ratings
(Ratings “1a” through “11c” noted under summary of each study)

Ranking by Type of Evidence:
(click on links to go to explanation)

STUDIES
1. Systematic Review/Meta-Analysis
2. Controlled Trial – Randomized (RCT) or Controlled
3. Cohort Study - Prospective or Retrospective
4. Case Series
5. Unstructured Review

OTHER:
6. Nationally Recognized Treatment Guideline (from guidelines.gov)
7. State Treatment Guideline
8. Other Treatment Guideline
9. Textbook
10. Conference Proceedings/Presentation Slides
11. Case Reports and Descriptions

Ranking by Quality within Type of Evidence:
(click on links to go to explanation)

a. High Quality
b. Medium Quality
c. Low Quality
Medical Disability (MD) Guidelines

Return to work is the best measure of healthcare outcomes.

Published by the Reed Group.

Source: Medical Disability Guidelines/Reed Group
Data Sources

- Greater emphasis on duration of sickness absence and return to work.
- Less emphasis on treatment effectiveness.
- Allows examination of aggregate data and individualized duration determination.
- Based on physiological recovery time (user-provided data), assuming prompt access to medical care.
- > 5,000,000 cases.
- Purportedly less influenced by worker’s compensation data and, hence, shorter durations than with ODG.
MD Guidelines

Low Back Pain

Related Terms
- Low Back Syndrome
- Lumbago
- Lumbar Pain

Differential Diagnoses
- Ankylosing spondylitis
- Aortic aneurysm
- Benign and malignant tumors
- Discitis
- Endometriosis
- Fibromyalgia
- Kidney disease
- Osteomyelitis
- Osteoporosis
- Pancreatic disease
- Pelvic disease

Medical Codes
- ICD-9-CM: 724.2, 724.4, 724.5
- ICD-10: M54.1, M54.5

Definition
Low back pain is a symptom, not a specific disease. Low back pain is usually described as discomfort in the lumbosacral region of the back that may or may not radiate to the legs, hips, and buttocks. The pain may be due to a variety of causes, and many individuals may never receive a clear diagnosis for the cause of the pain. A small percentage may have a serious disease unrelated to the back.

Although low back pain may be caused by medical conditions such as infection or cancer, the vast majority of low back pain cases are attributed to mechanical or musculoskeletal conditions. These conditions include lumbosacral muscle and ligament strains and sprains, disorders of the intervertebral discs and associated joint spaces such as degeneration, spondylolisthesis, degeneration that narrows the space through which spinal nerves pass (spinal stenosis); disc displacement (e.g., herniation of a disc); disorders of the vertebral body, such as slippage (spondylolisthesis), or fracture; or structural deformities, such as scoliosis. This section will focus on mechanical and musculoskeletal conditions that cause low back pain.

Low back pain ranks second only to upper respiratory infections as a cause of lost work productivity. It accounts for approximately 175.8 million days of restricted activity annually in the US (Patel).

Length of Disability
Length of disability will depend on the origin of the back pain and the individual’s response to rest or therapy.

Nonspecific treatment, low back pain.

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<th>Job Classification</th>
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<tr>
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<td>0</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
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<td>0</td>
<td>3</td>
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<tr>
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Factors Influencing Duration
Factors include occupation, age, and conditioning of the spine.
Carpenter (construction)

Constructs, erects, installs, and repairs structures and fixtures of wood, plywood, and wallboard, using carpenter's handtools and power tools, and conforming to local building codes: Studies blueprint.
MD Guidelines

- MDGuidelines Occupational Information for Carpenter (Construction): Constructs, erects, installs, and repairs structures and fixtures of wood, plywood, and wallboard, using carpenter's hand tools and power tools, and conforming to local building codes: Studies blueprints, sketches, or building plans for information pertaining to type of material required, such as lumber or fiberboard, and dimensions of structure or fixture to be fabricated.

- This job title falls within the Medium job class.
# MD Guidelines

## Low Back Pain

### Length of Disability

Length of disability will depend on the origin of the back pain and the individual's response to rest or therapy.

### Nonspecific treatment, low back pain.

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Source: Medical Disability Guidelines/Reed Group
MD Guidelines: Predictive Model

Purportedly, allows for individualized duration determination. Based on a least-squares linear regression model...?
Data Sources

• Geared more towards effective treatment.
• Focus on returning employees to work within 90 days.
• Cover medical, psychosocial, and functional outcomes of the injured worker.
• Critical appraisal, strength-of-the-evidence approach, based primarily on original research articles, not reviews.

Source: ACOEM, www.acoem.org
Critical appraisal + first principles:

- Not prescriptive; physician makes the ultimate decision (but with justification).
- Objective evidence urged to confirm clinical impressions.
- Tests should affect the course of treatment.
- Treatments should improve on the natural history of the disorder (which is often recovery without treatment).
- Invasive and/or costly treatment should be preceded by adequate conservative treatment.
- The more invasive and permanent, the more caution and the stronger should be the evidence of efficacy.
- Testing/treatment decisions should be based on collaboration between the clinician and patient with full disclosure.
- Treatment should not create dependence or functional disability.

Source: ACOEM, www.acoem.org
ACOEM Practice Guidelines

ACOEM Practice Guidelines Plus

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Low Back Disorders

Introduction Material
Impact
Overview
Summary of Recommendations and Evidence
Basic Principles and Definitions
Initial Assessment
Medical History & Physical Examination
Diagnostic Criteria
Diagnostic Testing
Work-relatedness
Initial Care
Activity Alteration
Work Activities
Follow-up visits
Special Studies and Diagnostic and Treatment Management of Specific Lumbar Spine Surgical Considerations
Management of Specific Lumbar Spine Prevention of Low Back Pain
Appendix 1
ACOEM Practice Guidelines 2004

Recommendations

Original data from high- or moderate-quality randomized controlled clinical trials or cross-over trials were relied upon to develop all evidence-based treatment guidance. Many "systematic" reviews, low-quality randomized controlled studies, other studies, and other guidelines for treatments are referenced and reviewed in this document's Appendix. Most of these "systematic" reviews or other guidelines are not high-quality reviews and guidelines usually due to one or more errors (e.g., lack of defined methodology, incomplete database searches, lack of exhaustive searches, lack of clearly defined article grading, lack of consideration of the importance of study design, selective use of the studies and inadequate or incorrect interpretation of the studies' results). These errors may render the conclusions invalid. Aside from Cochrane reviews which are nearly always high quality, these reviews, other studies, and other guidelines were not relied upon for purposes of the development of this document's guidance on treatments. Where there was not quality evidence, guidance represents a consensus of the Evidence-based Practice Panel.

Disclaimer

The American College of Occupational and Environmental Medicine provides this segment of guidelines for practitioners and notes that decisions to adopt particular courses of actions must be made by trained practitioners on the basis of the available resources and the particular circumstances presented by the individual patient. Accordingly, the ACOEM disclaims responsibility for any injury or damage resulting from actions taken by practitioners after considering these guidelines.

Source: ACOEM, www.acoem.org
ACOEM joins MDGuidelines

• The Reed Group MD Guidelines now incorporate the ACOEM Practice Guidelines.
• Both are accessible online.
• MD Guidelines emphasize time to return to work.
• ACOEM Practice Guidelines emphasize best treatment practices.
ODG and MDGuidelines: how do they compare?

ICD-9 Code: 724.2 Lumbago.  
Healthy 33 year old male.

<table>
<thead>
<tr>
<th>Guide</th>
<th>Clerical work</th>
<th>Heavy work</th>
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<tbody>
<tr>
<td>ODG</td>
<td>0 days</td>
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<td>1 day</td>
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Summary

• Use of evidence-based guidelines for sickness absence duration and return to work is increasingly being mandated in the U.S.
  • **MD Guidelines** emphasize time to return to work.
  • **ACOEM Guidelines** emphasize effective treatment.
  • **ODG** emphasize both.
• The approach to evidence evaluation is rigorous in all three.
• Need to evaluate their effectiveness in improving case management of sickness absence...i.e., the ultimate outcome.
Thank you.