Complete Summary

GUIDELINE TITLE

Neck and upper back (acute & chronic).

BIBLIOGRAPHIC SOURCE(S)

Work Loss Data Institute. Neck and upper back (acute & chronic). Corpus Christi (TX): Work Loss Data Institute; 2007 Jul 5. 266 p. [315 references]

GUIDELINE STATUS

Note: This guideline has been updated. The National Guideline Clearinghouse (NGC) is working to update this summary.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory information has been released.

- June 15, 2005, Non-Steroidal Anti-Inflammatory Drugs (NSAIDs): U.S. Food and Drug Administration (FDA) recommended proposed labeling for both the prescription and over the counter (OTC) NSAIDs and a medication guide for the entire class of prescription products.
- April 7, 2005, Non-steroidal anti-inflammatory drugs (NSAIDS) (prescription and OTC, including ibuprofen and naproxen): FDA asked manufacturers of prescription and non-prescription (OTC) non-steroidal anti-inflammatory drugs (NSAIDs) to revise their labeling to include more specific information about potential gastrointestinal (GI) and cardiovascular (CV) risks.

COMPLETE SUMMARY CONTENT

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SCOPE

DISEASE/CONDITION(S)

Work-related disorders of the neck and upper back

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Chiropractic
Family Practice
Internal Medicine
Neurological Surgery
Neurology
Physical Medicine and Rehabilitation

INTENDED USERS

Advanced Practice Nurses
Health Care Providers
Health Plans
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To offer evidence-based step-by-step decision protocols for the assessment and treatment of workers' compensation conditions

TARGET POPULATION

Workers with occupational disorders of the neck and upper back

INTERVENTIONS AND PRACTICES CONSIDERED

The following interventions/procedures were considered and recommended as indicated in the original guideline document:

1. Activity restrictions/work modifications
2. Back schools for treatment

3. Bone scan
4. Botulinum toxin (injection) for cervical dystonia
5. Cervical strengthening exercises
6. Chiropractic care/manipulation
7. Cognitive behavioral rehabilitation for chronic cases
8. Cold packs
9. Corpectomy and stabilization
10. Decompression (for patients with severe or progressive myelopathy)
11. Discectomy/laminectomy/laminoplasty/laminotomy
12. Electromyography (EMG) (needle, not surface), including H-reflex tests
13. Epidural steroid injection (ESI) for radicular pain
14. Evoked potential studies in diagnostic assessment
15. Exercise
16. Facet join pain (evaluation of signs and symptoms)
17. Facet joint diagnostic blocks
18. Fear-avoidance beliefs questionnaire (FABQ) in patient selection for physical therapy
19. Fluoroscopy (for ESIs)
20. Functional restoration programs
21. Fusion, anterior cervical
22. H-reflex tests
23. Headache screening for neck injury
24. Heat/cold applications
25. Home health services
26. Home cervical autotraction (patient controlled) devices
27. Massage
28. Methylprednisolone (high-dose) for whiplash
29. Muscle relaxants in acute cases
30. Nonprescription medications (e.g., acetaminophen, nonsteroidal anti-inflammatory drugs [NSAIDs])
31. Physical therapy/occupational therapy
32. Pillow as a neck support while sleeping
33. Psychological screening prior to surgery
34. Return to work
35. Sensory evoked potentials (SEPS) for unexplained myelopathy and/or in unconscious spinal cord injury patients
36. Steroids (in acute spinal cord injury)
37. Stretching as part of an exercise program
38. Surgery (See original guideline document for specific types of surgery)
39. Therapeutic exercises
40. Whiplash associated disorder (WAD) treatment
41. Work conditioning/hardening

The following interventions/procedures are under study and are not specifically recommended:

1. Acupuncture for upper back
2. Back brace, post-operative (fusion)
3. Bone growth stimulators
4. Electromagnetic therapy (PEMT)
5. Ergonomics
6. Facet joint radiofrequency neurotomy/facet rhizotomy

7. Fusion, posterior cervical
8. Greater occipital nerve block (diagnostic and therapeutic)
9. Multidisciplinary biopsychosocial rehabilitation
10. Patient education
11. Percutaneous electrical nerve stimulation (PENS)
12. Plate fixation, cervical spine surgery
13. Therapeutic ultrasound

The following interventions were considered, but are not recommended:

1. Acupuncture for neck pain
2. Bed rest
3. Biofeedback
4. Cervical orthosis
5. Cervical collars, including soft collars
6. Chymopapain (injection)
7. Computed tomography (CT) (*Not recommended except for specific indications* [See original guideline document])
8. Current perception threshold (CPT) testing
9. Delayed treatment
10. Diagnostic ultrasound
11. Diathermy
12. Discography
13. Disc prosthesis
14. Electrical muscle stimulation (EMS)
15. Electrotherapies
16. Facet-joint therapeutic steroid injections
17. Flexibility/range of motion evaluations
18. F-wave tests
19. Galvanic current
20. Hospitalization
21. Iontophoresis
22. Laser therapy
23. Magnetic resonance imaging (*Not recommended except for specific indications* [See original guideline document])
24. Magnets
25. Manipulations under anesthesia (MUA)
26. Myelography (*Not recommended except for surgical planning*)
27. NC-stat nerve conduction studies/nerve conduction studies (NCS)
28. Opioids (*Not recommended except for short use in severe cases*)
29. Oral corticosteroids
30. Percutaneous neuromodulation therapy (PNT)
31. Prolotherapy (sclerotherapy)
32. Radiography (*Not recommended except for specific indications* [See original guideline document])
33. Rest
34. Sensory evoked potentials (SEPS) for radiculopathies and peripheral nerve lesions
35. Standing MRI
36. Surface electromyography (EMG)
37. Thermography (diagnostic)
38. Transcutaneous electrical neurostimulation (TENS)

39. Transplantation, intervertebral disc
40. Trigger point injections
41. Videofluoroscopy (for range of motion)

MAJOR OUTCOMES CONSIDERED

- Diagnostic value of tests
- Effectiveness of treatments for relieving pain and restoring normal function

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Work Loss Data Institute (WLDI) conducted a comprehensive medical literature review (now ongoing) with preference given to high quality systematic reviews, meta-analyses, and clinical trials published since 1993, plus existing nationally recognized treatment guidelines from the leading specialty societies. WLDI primarily searched MEDLINE and the Cochrane Library. In addition, WLDI also reviewed other relevant treatment guidelines, including those in the National Guideline Clearinghouse, as well as state guidelines and proprietary guidelines maintained in the WLDI guideline library. These guidelines were also used to suggest references or search terms that may otherwise have been missed. In addition, WLDI also searched other databases, including MD Consult, eMedicine, CINAHL, and conference proceedings in occupational health (i.e. American College of Occupational and Environmental medicine [ACOEM]) and disability evaluation (i.e. American Academy of Disability Evaluating Physicians [AADEP], American Board of Independent Medical Examiners [ABIME]). 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.

In searching the medical literature, answers to the following questions were sought: (1) If the diagnostic criteria for a given condition have changed since 1993, what are the new diagnostic criteria? (2) What occupational exposures or activities are associated causally with the condition? (3) What are the most effective methods and approaches for the early identification and diagnosis of the condition? (4) What historical information, clinical examination findings or ancillary test results (such as laboratory or x-ray studies) are of value in determining whether a condition was caused by the patient's employment? (5) What are the most effective methods and approaches for treating the condition? (6) What are the specific indications, if any, for surgery as a means of treating the condition? (7) What are the relative benefits and harms of the various surgical and non-surgical interventions that may be used to treat the condition? (8) What is the relationship, if any, between a patient's age, gender, socioeconomic status and/or racial or ethnic grouping and specific treatment outcomes for the condition? (9) What instruments or techniques, if any, accurately assess

functional limitations in an individual with the condition? (10) What is the natural history of the disorder? (11) Prior to treatment, what are the typical functional limitations for an individual with the condition? (12) Following treatment, what are the typical functional limitations for an individual with the condition? (13) Following treatment, what are the most cost-effective methods for preventing the recurrence of signs or symptoms of the condition, and how does this vary depending upon patient-specific matters such as underlying health problems?

Criteria for Selecting the Evidence

Preference was given to evidence that met the following criteria: (1) The article was written in the English language, and the article had any of the following attributes: (2) It was a systematic review of the relevant medical literature, or (3) The article reported a controlled trial – randomized or controlled, or (4) The article reports a cohort study, whether prospective or retrospective, or (5) 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.

More information about the selection of evidence is available in "Appendix. ODG Treatment in Workers' Comp. Methodology description using the AGREE instrument" (see "Availability of Companion Documents" field).

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

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 www.guideline.gov)
7. State Treatment Guideline
8. Other Treatment Guideline
9. Textbook
10. Conference Proceedings/Presentation Slides

Ranking by Quality within Type of Evidence

a. High Quality

b. Medium Quality
c. Low Quality

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

The Work Loss Data Institute (WLDI) reviewed each article that was relevant to answering the question at issue, with priority given to those that met the following criteria: (1) The article was written in the English language, and the article had any of the following attributes: (2) It was a systematic review of the relevant medical literature, or (3) The article reported a controlled trial – randomized or controlled, or (4) The article reported a cohort study, whether prospective or retrospective, or (5) The article reported 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.

Especially when articles on a specific topic that met the above criteria were limited in number and quality, WLDI also reviewed other articles that did not meet the above criteria, but all evidence was ranked alphanumerically (see the Rating Scheme of the Strength of Evidence field) so that the quality of evidence could be clearly determined when making decisions about what to recommend in the Guidelines. Articles with a Ranking by Type of Evidence of Case Reports and Case Series were not used in the evidence base for the Guidelines. These articles were not included because of their low quality (i.e., they tend to be anecdotal descriptions of what happened with no attempt to control for variables that might effect outcome). Not all the evidence provided by WLDI was eventually listed in the bibliography of the published Guidelines. Only the higher quality references were listed. The criteria for inclusion was a final ranking of 1a to 4b (the original inclusion criteria suggested the methodology subgroup), or if the Ranking by Type of Evidence was 5 to 10, the quality ranking should be an "a."

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

The guideline developers reviewed published cost analyses.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Prior to publication, select organizations and individuals making up a cross-section of medical specialties and typical end-users externally reviewed the guideline.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note: This guideline has been updated. The National Guideline Clearinghouse (NGC) is working to update this summary. The recommendations that follow are based on the previous version of the guideline.

Identify Neurologic Findings

- First visit: may be with Primary Care Physician MD/DO (50%), Orthopedist (35%), or Chiropractor (15%)
- Determine Neurologic Findings -- Initial Evaluation

History

- Note any previous neck problems or related disabilities.
- Determine the onset of the injury and mechanism of injury (any direct trauma, head injury, or fall).
- Determine any history of trauma to the neck and any initial acute episode of pain or whiplash injury.
- Search for any symptoms of possible neurologic impairment, such as weakness in an upper extremity, numbness, or radicular pain radiating into upper extremities.
- History of work activities, hobbies, and sports
- Note any psychosocial problems, such as substance abuse, job dissatisfaction, conflict with supervisors, marital problems, and/or financial problems.
- Determine relevant medical history, history of systemic disease, or previous neck injury or disability. Note any history which produces radiating pain in the neck from structures such as the thyroid, the lymph nodes, the esophagus, the trachea, or from a Pancoast tumor in the apex of the lung. Note any history of cancer.

Physical Examination

- Perform a comprehensive examination of the neck and upper extremities including attention to flexibility, strength, and range-of-motion of the neck.
- Perform a careful limited neurological examination of the neck and the upper and lower extremities to determine which diagnostic tests and therapy should be performed. This examination should include reflexes of the biceps, triceps, and brachioradialis tendons and those of the lower extremities, as well as weakness and sensory changes to pin prick by anatomical area (dermatomes) when needed. Check for long tract signs (Babinski and clonus).
- Evaluate for any evidence of weakness or atrophy of muscle groups of the arm.
- Evaluate for any signs of systemic disease.

- Note that any patient with an acute injury and positive neurologic findings requires a neck splint, immobilization, and referral to a spinal surgeon.

Imaging

- Imaging modalities are often not necessary for patients with typical nontraumatic acute neck pain, but due to the risk of treating patients with undiagnosed cervical vertebral fractures, x-rays are necessary if there is any possibility of a fracture, even in patients without neurologic findings. Any patient with a minimal fracture of the cervical spine should have a computed tomography (CT) scan to evaluate the status of the neural arch.
- Indications for x-rays of the cervical spine include the following:
    - A history of direct trauma, blow to the head, any significant whiplash type injury, or any significant fall. These patients should have an x-ray of the cervical spine. Patients with fractures of the cervical spine should be referred to a spinal surgeon.
    - Whiplash with any evidence of neurologic deficit or persistent pain
    - Chronic, slow onset of pain, especially if it is increasing or night pain
    - A history of systemic disease such as cancer, long-term steroid therapy, or alcohol abuse
    - Patients over 50 years of age with any question of etiology of symptoms
    - Patients with significant stiffness of the cervical spine
    - Lateral flexion and extension views may demonstrate instability of the spine and indicate the need for consultation even in the absence of a fracture (fingertip test), muscle atrophy (calf measurement), local areas of tenderness, visual pain analog
- Indications for magnetic resonance imaging (MRI) of the cervical spine include the following:
    - Any suggestion of abnormal neurologic findings below the level of injury
    - Progressive neurologic deficit
    - Persistent unremitting pain with or without positive neurologic findings
    - Previous herniated intervertebral disk within the last two years and radicular pain with positive neurologic findings
    - Patients with significant neurologic findings and failure to respond to conservative therapy despite compliance with the therapeutic regimen
- Imaging procedures such as CT scans are necessary for any fracture of the cervical spine, with referral to a spinal surgeon.
- Additional imaging procedures, such as bone scan, myelography, etc., have special indications and are rarely needed at this stage, unless strong evidence of systemic disease exists and further evaluations thought necessary by the spinal surgeon.
- Other tests such as electromyography (EMG) or nerve conduction studies are not necessary in the initial evaluation of patients with new symptoms, due to the fact that these tests will not become positive until four to six weeks after the onset of symptoms. An EMG is not necessary for the diagnosis of intervertebral disk disease with radiculopathy; rather, its value lies in differentiating other types of neuritis, neuropathy, or muscle abnormalities from radicular neuropathy and for cases where the etiology of the pain is not clear. An EMG is most appropriate to perform after an evaluation by a specialist.

Presumptive Diagnosis (see original guideline document for International Classification of Diseases, Ninth Revision [ICD-9] codes)

- **Without Neurologic Findings**
  - Neck pain with no radiation of pain beyond the neck area
  - Neck pain with radiation of pain in shoulders and upper back, but with no radicular signs
  - Chronic neck pain or chronic neck problems or whiplash
- **With Neurologic Findings**
  - Fracture of cervical spine
  - Radicular pain and positive signs indicate a presumptive diagnosis of herniated intervertebral disk
  - Neurologic signs and symptoms at the cervical level and in the lower body or lower extremities
  - Radicular pain and positive signs indicate a presumptive diagnosis of herniated intervertebral disk and an MRI or CT scan shows positive findings of a herniated intervertebral disk that matches the clinical findings

Cases Without Neurologic Findings (95% of cases)

- Also first visit (day 1):
  - Prescribe decreased activity if necessary based on severity and difficulty of job, passive therapy with heat/ice (3 to 4 times/day), stretching/exercise, appropriate analgesia (i.e., acetaminophen) and/or anti-inflammatory (i.e., ibuprofen) [*Benchmark cost: $14*], back to work except for severe cases in 72 hours, possibly modified duty. Avoid bed rest.
  - No x-rays unless major trauma (e.g., a fall)
  - If muscle spasms, then prescribe muscle relaxant with limited sedative side effects [*Benchmark cost: $44*].
  - Reassure patient: common problem (90% of patients recover spontaneously in 4 weeks)

Official Disability Guidelines (ODG) Return-To-Work Pathways (*neck sprain*)

Whiplash grade 0 (Quebec Task Force grades): 0 days

(See *ODG Capabilities & Activity Modifications for Restricted Work* under "Work" in the Procedure Summary of the original guideline document)

- Second visit (day 3 to 10 – about 1 week after first visit, or sooner, because delayed treatment is not recommended)
  - Document progress (areas of tenderness, motor strength).
  - If still 50% disabled then prescribe manual therapy [*Benchmark cost: $250*]: Refer to massage therapist, chiropractor, physical therapist, or occupational therapist (3 visits in first week), or by treating DO.
  - Probably discontinue muscle relaxant.

ODG Return-To-Work Pathways (*neck sprain*)

Whiplash grade I-III, clerical/modified work: 5 days

- Third visit (day 10 to 17 – about 1 week after second visit)
    - Document progress.
    - Prescribe muscle-conditioning exercises.
    - At this point 66% to 75% should be back to regular work.
    - If still disabled, then first imaging study (anteroposterior [AP]/lateral 2-view x-ray of upper back) [*Benchmark cost: $150*] to rule out cervical spondylolysis or joint narrowing/spinal stenosis (age related, not caused by recent trauma - will not change treatment)
    - Continue therapist, change from passive to active modality, 2 visits in next week, teach home exercises
    - End manual therapy (physical therapy or manipulation) at 4 weeks.

ODG Return-To-Work Pathways (*neck sprain*)

Whiplash grade I-III, manual work: 21 days

Whiplash grade I-III, heavy manual work: 28 days

- Up to 3 more visits for follow up and documentation of progress

Cases With Neurologic Findings (5% of cases)

- Also first visit (day 1)
    - Same as non-radicular

ODG Return-To-Work Pathways (*cervical disc disorders*)

Mild cases with back pain, avoid strenuous activity: 0 days

Initial conservative medical treatment, clerical/modified work: 0 to 3 days

- Second visit (day 3 to 10 – about 1 week after first visit)
    - Same as non-radicular, but
    - Reassure, but warn of increased numbness or weakness of either arm: if so, get back to provider in one day
    - Consider referral to musculoskeletal physician (orthopedist/physical medicine and rehabilitation (PM&R)/sports medicine)
- Third visit (day 10 to 17 – about 1 week after second visit)
    - Same as non-radicular, but
    - About 50% can be back at modified duty.
    - If improvement, then add strengthening exercises, increased activity
- Fourth visit (day 21 to 28 – about 1 to 2 weeks after third visit)
    - Document, if no improvement then:
    - First MRI (about 3% of total cases, or 30% of cases with neurologic symptoms) to confirm extruded disk with nerve root displacement [*Benchmark cost: $1,600*]

- MRI or CT **not** indicated without obvious clinical level of nerve root dysfunction or before 3 to 4 weeks
- Consider epidural steroid injection (ESI) for severe cases hoping to avoid surgery [*Benchmark cost: $676*].
- Bone scan if spondylolisthesis
- Second MRI only if progression of neurological symptoms (less than 1% of cases)
- Refer to fellowship trained Spine Surgeon: Neurosurgeon (50%), Orthopedist (50%)
- Before surgery, screen for psychological symptoms that could affect surgical outcome (e.g., substance abuse, child abuse, work conflicts, somatization, verbalizations, attorney involvement, smoking).
- If psychological factors retarding recovery are suspected, possibly refer to psychologist for testing (Minnesota Multiphasic Personality Inventory [MMPI] or, better, Waddell test) [*Benchmark cost: $540*].

ODG Return-To-Work Pathways (*cervical disc disorders*)

Initial conservative medical treatment, manual work: 35 days

- Surgery (day 28 to 35) (about 2% of total cases, or 20% of radicular cases) (See also "ODG Indications for Surgery™ – Discectomy" in the Procedure Summary of the original guideline document.)
    - Review options/outcomes with patient, let patient decide
    - Simple discectomy/laminectomy, minimally invasive [*Benchmark cost: $17,400*]
    - Outpatient (23 hour stay)
    - Post-operative pain, walking exercises

ODG Return-To-Work Pathways (*cervical disc disorders*)

Cervical discectomy, clerical/modified work: 28 to 56 days

Cervical discectomy, manual work: 56 days

Cervical discectomy, heavy manual work: 126 days to indefinite

Cervical laminectomy/decompression, clerical/modified work: 28 days

Cervical laminectomy/decompression, manual work: 63 days

Cervical laminectomy/decompression, heavy manual work: 105 days to indefinite

- Follow-up visits as required

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

During the comprehensive medical literature review, preference was given to high quality systematic reviews, meta-analyses, and clinical trials over the past ten years, plus existing nationally recognized treatment guidelines from the leading specialty societies.

The heart of each Work Loss Data Institute guideline is the Procedure Summary (see the original guideline document), which 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.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

These guidelines unite evidence-based protocols for medical treatment with normative expectations for disability duration. They also bridge the interests of the many professional groups involved in diagnosing and treating work-related disorders of the neck and upper back.

POTENTIAL HARMS

- Adverse reactions to chiropractic care for neck pain may be common and they appear more likely to follow cervical spine manipulation than mobilization. Data suggest that spinal manipulation is associated with frequent, mild and transient adverse effects as well as with serious complications that can lead to permanent disability or death.
- Risks of adverse effects from surgery. Research has indicated that as many as 60% of patients who received laminoplasty had posterior neck and shoulder girdle pain post-operatively (versus 25% in the laminectomy group). Resection of posterior osteophytes during decompression for progressive myelopathy may be associated with increased risk of injury to the spinal cord, and a potential side effect of removal of the posterior longitudinal ligament is the risk of cord contusion.
- There have been recent case reports of cerebellar infarct and brainstem herniation as well as spinal cord infarction after cervical transforaminal injection. Quadriparesis with a cervical epidural steroid injection (ESI) at C6-7 has also been noted and the American Society of Anesthesiologists Closed Claims Project database revealed 9 deaths or cases of brain injury after cervical ESI.
- Muscle relaxants have potential side effects, including drowsiness in up to 30 percent of patients.

CONTRAINDICATIONS

CONTRAINDICATIONS

Patients undergoing occipitocervical fusion or C1–2 (high cervical region) fusion is an absolute contraindication for returning to any type of activity with a risk of re-injury (such as contact sports), because the C-1 arch is relatively fragile and stability depends on the status of the periodontoid ligaments.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

The Treatment Planning sections outline the most common pathways to recovery, but there is no single approach that is right for every patient and these protocols do not mention every treatment that may be recommended. See the Procedure Summaries (in the original guideline document) for complete lists of the various options that may be available, along with links to the medical evidence.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Patient Resources

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness
Timeliness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Work Loss Data Institute. Neck and upper back (acute & chronic). Corpus Christi (TX): Work Loss Data Institute; 2007 Jul 5. 266 p. [315 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2003 (revised 2007 Jul 5)

GUIDELINE DEVELOPER(S)

Work Loss Data Institute - Public For Profit Organization

SOURCE(S) OF FUNDING

Not stated

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Editor-in-Chief, Philip L. Denniston, Jr. and Senior Medical Editor, Charles W. Kennedy, MD, together pilot the group of approximately 80 members. See the ODG *Treatment in Workers Comp* Editorial Advisory Board.

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

There are no conflicts of interest among the guideline development members.

GUIDELINE STATUS

Note: This guideline has been updated. The National Guideline Clearinghouse (NGC) is working to update this summary.

GUIDELINE AVAILABILITY

Electronic copies of the updated guideline: Available to subscribers from the Work Loss Data Institute Web site.

Print copies: Available from the Work Loss Data Institute, 169 Saxony Road, Suite 210, Encinitas, CA 92024; Phone: 800-488-5548, 760-753-9992, Fax: 760-753-9995; www.worklossdata.com.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Background information on the development of the Official Disability Guidelines of the Work Loss Data Institute is available from the Work Loss Data Institute Web site.
- Appendix. ODG Treatment in Workers' Comp. Methodology description using the AGREE instrument. Available to subscribers from the Work Loss Data Institute Web site.

PATIENT RESOURCES

The following is available:

- Appendix B. ODG Treatment in Workers' Comp. Patient information resources. 2006.

Electronic copies: Available to subscribers from the Work Loss Data Institute Web site.

Print copies: Available from the Work Loss Data Institute, 169 Saxony Road, Suite 210, Encinitas, CA 92024; Phone: 800-488-5548, 760-753-9992, Fax: 760-753-9995; www.worklossdata.com.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

This summary was completed by ECRI on February 2, 2004. The information was verified by the guideline developer on February 13, 2004. This NGC summary was updated by ECRI on March 28, 2005, January 13, 2006, April 12, 2006, November 13, 2006, April 2, 2007, and August 28, 2007.

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