Complete Summary

GUIDELINE TITLE

Interventional techniques: evidence-based practice guidelines in the management of chronic spinal pain.

BIBLIOGRAPHIC SOURCE(S)

Boswell MV, Trescot AM, Datta S, Schultz DM, Hansen HC, Abdi S, Sehgal N, Shah RV, Singh V, Benyamin RM, Patel VB, Buenaventura RM, Colson JD, Cordner HJ, Epter RS, Jasper JF, Dunbar EE, Atluri SL, Bowman RC, Deer TR, Swicegood JR, Staats PS, Smith HS, Burton AW, Kloth DS, Giordano J, Manchikanti L. Interventional techniques: evidence-based practice guidelines in the management of chronic spinal pain. Pain Physician 2007 Jan;10(1):7-111. [1334 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Boswell MV, Shah RV, Everett CR, Sehgal N, Mckenzie-Brown AM, Abdi S, Bowman RC, Deer TR, Datta S, Colson JD, Spillane WF, Smith HS, Lucas LF, Burton AW, Chopra P, Staats PS, Wasserman RA, Manchikanti L. Interventional techniques in the management of chronic spinal pain: evidence-based practice guidelines. Pain Phys 2005;8(1):1-47.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Chronic spinal pain

GUIDELINE CATEGORY

Diagnosis
Management
Technology Assessment
Treatment

CLINICAL SPECIALTY

Anesthesiology
Neurological Surgery
Neurology
Orthopedic Surgery
Physical Medicine and Rehabilitation
Radiology
Rheumatology

INTENDED USERS

Allied Health Personnel
Health Plans
Managed Care Organizations
Patients
Physicians
Utilization Management

GUIDELINE OBJECTIVE(S)

- To develop evidence-based clinical practice guidelines for interventional techniques in the diagnosis and treatment of chronic spinal pain, utilizing all types of evidence to apply an evidence-based approach, with broad representation of specialists from academic and clinical practices
- To improve quality of care, patient access, treatment outcomes, appropriateness of care, efficiency and effectiveness, and achieve cost containment by improving the cost-benefit ratio

TARGET POPULATION

All patients with chronic spinal pain who are eligible to undergo commonly utilized and effective interventional technique(s)

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnostic Interventional Techniques

1. Facet or zygapophysial joint blocks
2. Provocative discography
3. Transforaminal epidural injections or selective nerve root blocks
4. Sacroiliac joint blocks

Therapeutic Interventional Techniques

1. Facet joint pain interventions
    - Intraarticular blocks
    - Medial branch blocks
    - Medial branch neurotomy
2. Epidural injections
    - Caudal epidural injections
    - Interlaminar epidural injections
    - Transforaminal epidural injections
3. Epidural adhesiolysis
    - Percutaneous adhesiolysis
    - Spinal endoscopic adhesiolysis
4. Sacroiliac joint interventions
    - Sacroiliac joint blocks
    - Radiofrequency neurotomy
5. Intradiscal therapies
    - Intradiscal electrothermal therapy
    - Radiofrequency posterior annuloplasty
6. Percutaneous disc decompression
    - Automated percutaneous lumbar discectomy
    - Percutaneous laser discectomy
    - Nucleoplasty
    - Decompression utilizing mechanical high revolutions per minute (RPM) device or DeKompressor technology
7. Vertebral augmentation procedures
    - Vertebroplasty
    - Kyphoplasty
8. Implantable therapies
    - Spinal cord stimulation
    - Implantable intrathecal drug administration systems

Evaluation and Management

1. Evaluation
2. Medical necessity management

MAJOR OUTCOMES CONSIDERED

- Validity, specificity, and sensitivity of diagnostic interventions for spinal pain
- Patient's quality of life
- Patient's mood, activities of daily living
- Effectiveness of treatment in controlling pain (i.e., short-term and long-term pain relief)
- Complications of therapy
- Patient-reported pain intensity as recorded with standard pain scales
- Associated costs (e.g., healthcare expenditures, disability compensation, lost production, lost tax revenue)

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

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

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

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

Designation of Levels of Evidence

Level I

Conclusive: Research-based evidence with multiple relevant and high-quality scientific studies or consistent reviews of meta-analyses

Level II

Strong: Research-based evidence from at least one properly designed randomized, controlled trial; or research-based evidence from multiple properly designed studies of smaller size; or multiple low quality trials

Level III

Moderate: a) Evidence obtained from well-designed pseudorandomized controlled trials (alternate allocation or some other method); b) evidence obtained from comparative studies with concurrent controls and allocation not randomized (cohort studies, case-controlled studies, or interrupted time series with a control group); c) evidence obtained from comparative studies with historical control, two or more single-arm studies, or interrupted time series without a parallel control group

Level IV

Limited: Evidence from well-designed nonexperimental studies from more than one center or research group; or conflicting evidence with inconsistent findings in multiple trials

Level V

Indeterminate: Opinions of respected authorities, based on clinical evidence, descriptive studies, or reports of expert committees

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

In synthesizing the evidence, systematic reviews, randomized clinical trials, observational studies, and diagnostic accuracy studies were evaluated utilizing reporting criteria and quality evaluation criteria. For a particular technique, if at least ten randomized trials were not available, nonrandomized or observational studies were also included.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

A policy committee, with broad representation, consisting of academic and clinical practitioners recognized as experts in one or more interventional techniques of concern and representing a variety of practices and geographic areas, were included and convened. This committee formalized the essentials of guidelines. This was followed by formulation of a series of potential evidence linkages, representing conclusions and statements about relationships between clinical interventions and outcomes. The elements of the guideline preparation process included literature searches, literature syntheses, systematic review, consensus evaluation, open forum presentations, and blinded peer review.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

Descriptions of the review of published cost analyses are provided in the body of the original guideline document for each interventional technique in subsections called "Cost Effectiveness."

METHOD OF GUIDELINE VALIDATION

Internal Peer Review
Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

This guideline underwent blinded peer review.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

These recommendations are presented in abbreviated form. Readers should refer to the text of the original guideline document for a detailed discussion of each of the following topics.

Definitions for the designations of levels of evidence (level I [conclusive], level II [strong], level III [moderate], level IV [limited], and level V [indeterminate]) are provided at the end of the "Major Recommendations" field.

Diagnostic Interventional Techniques

Facet or Zygapophysial Joint Diagnostic Blocks

The accuracy of facet joint nerve blocks is strong in the diagnosis of lumbar and cervical facet joint pain, whereas it is moderate in the diagnosis of thoracic facet joint pain.

Provocation Discography

The evidence for cervical and thoracic discography is limited. The evidence for lumbar discography is strong for discogenic pain provided that lumbar discography is performed based on the history, physical examination, imaging data, and analysis of other precision diagnostic techniques. There is no evidence to support discography without other non-invasive or less invasive modalities of treatments or other precision diagnostic injections.

Transforaminal Epidural Injections or Selective Nerve Route Blocks

The evidence is moderate for selective nerve root blocks in the preoperative evaluation of patients with negative or inconclusive imaging studies and clinical findings of nerve root irritation.

Sacroiliac Joint Blocks

The evidence for the accuracy of sacroiliac joint diagnostic injections is moderate for the diagnosis of sacroiliac joint pain.

Therapeutic Interventional Techniques

Facet Joint Interventions

- *Intraarticular Blocks*. For intraarticular injections of local anesthetics and steroids, there is moderate evidence for short and long-term improvement in managing low back pain and the evidence is limited for short and long-term relief in the management of neck pain.

- *Medial Branch Blocks*. The evidence for lumbar, cervical, and thoracic medial branch blocks in managing chronic low back, neck, mid back and upper back pain is moderate for short-term and long-term pain relief.
- *Medial Branch Neurotomy*. Evidence for radiofrequency neurotomy of medial branch of cervical spine utilizing the techniques with multiple lesioning and strict criteria of 100% pain relief with diagnostic blocks, a tedious and time consuming procedure, is strong for short and long-term relief of cervical facet joint pain.

  Utilizing traditional radiofrequency neurotomy techniques as practiced in the United States in the cervical and lumbar region, the evidence for radiofrequency neurotomy of medial branches is strong for short-term and moderate for long-term relief. Evidence for cryo denervation, and pulsed radiofrequency is indeterminate.

Epidural Injections

- *Caudal Epidural Injections*. The evidence for caudal epidural steroid injections is strong for short-term relief and moderate for long-term relief, in managing chronic low back and radicular pain. The evidence in post-lumbar laminectomy syndrome and spinal stenosis is limited.
- *Interlaminar Epidural Injections*. The evidence of interlaminar epidural steroid injections in managing lumbar radiculopathy is strong for short-term relief and limited for long-term relief. In managing cervical radiculopathy, the evidence is moderate for short-term and long-term relief. The evidence is indeterminate in the management of neck pain, low back pain, and lumbar spinal stenosis.
- *Transforaminal Epidural Injections*. In managing lumbar radicular pain with interlaminar lumbar epidural steroid injections, the evidence is strong for short-term relief and limited for long-term relief. In managing cervical radiculopathy with cervical interlaminar epidural steroid injections, the evidence is moderate for short-term improvement and long-term improvement. The evidence is indeterminate in the management of axial neck pain, axial low back pain, and lumbar spinal stenosis.

Epidural Adhesiolysis

- *Percutaneous Adhesiolysis*. The evidence is strong in managing chronic low back and lower extremity pain in post surgery syndrome. The evidence is moderate in managing low back and lower extremity pain secondary to disc herniation producing radiculopathy. The evidence is limited in managing back and/or lower extremity pain secondary to spinal stenosis.
- *Endoscopic Adhesiolysis*. Evidence for spinal endoscopy is strong for short-term relief and moderate for long-term relief, in managing chronic refractory low back and lower extremity pain secondary to post-lumbar surgery syndrome.

Sacroiliac Joint Interventions

- *Intraarticular Injections*. The evidence for intraarticular sacroiliac joint injections is limited for short and long-term relief.

- *Radiofrequency Neurotomy*. The evidence for thermal and pulsed radiofrequency neurotomy in managing sacroiliac joint pain is limited.

Intradiscal Therapies

- *Intradiscal Electrothermal Therapy*. The evidence for intradiscal electrothermal therapy (IDET) is moderate in managing chronic discogenic low back pain.
- *Radiofrequency Posterior Annuloplasty*. The evidence for radiofrequency posterior annuloplasty was limited for short-term improvement, and indeterminate for long-term improvement in managing chronic discogenic low back pain.

Percutaneous Disc Decompression

- *Automated Percutaneous Lumbar Discectomy*. The evidence is moderate for short-term and limited for long-term relief.
- *Percutaneous Laser Discectomy*. The evidence is moderate for short-term and limited for long-term relief.
- *Nucleoplasty*. The evidence of nucleoplasty is limited for short and long-term relief.
- *Mechanical High Rotation Per Minute (RPM) Device*. The evidence for percutaneous disc decompression utilizing DeKompressor is limited for short and long-term relief.

Vertebral Augmentation Procedures

- *Vertebroplasty*. The level of evidence for vertebroplasty is moderate.
- *Kyphoplasty*. The level of evidence for kyphoplasty is moderate.

Implantable Therapies

- *Spinal Cord Stimulation*. The evidence for spinal cord stimulation in failed back surgery syndrome and complex regional pain syndrome is strong for short-term relief and moderate for long-term relief.
- *Implantable Intrathecal Drug Administration Systems*. The evidence for implantable intrathecal infusion systems is strong for short-term improvement in pain of malignancy or neuropathic pain. The evidence is moderate for long-term management of chronic pain.

Evaluation and Management

Evaluation

Appropriate history, physical examination, and medical decision making are essential to provide appropriate documentation and patient care. There are numerous acceptable medical methods to evaluate a chronic spinal pain patient. These methods vary from physician to physician and textbook to textbook. The guidelines established by the Centers for Medicare and Medicaid Services (CMS) and the American Medical Association's Current Procedural Terminology (CPT) aid the physician in performing a comprehensive and complete evaluation, and assist

in complying with regulations. The CMS guidelines define 5 levels of services. The 3 crucial components of evaluation and management services are: history, physical examination, and medical decision-making. Other components include: counseling, coordination of care, nature of presenting problem, and time.

A suggested algorithm for comprehensive evaluation and management of chronic spinal pain is illustrated in Figure 1 of the original guideline document.

Medical Necessity Management

The following criteria should be considered carefully in performing interventional techniques:

1. Complete initial evaluation, including history and physical examination
2. Physiological and functional assessment, as necessary and feasible
3. Determination of indications and medical necessity:
    - Suspected organic problem
    - Nonresponsiveness to less invasive modalities of treatments except in acute situations such as acute disc herniation, herpes zoster and postherpetic neuralgia, reflex sympathetic dystrophy, and intractable pain secondary to carcinoma
    - Pain and disability of moderate-to-severe degree
    - No evidence of contraindications such as severe spinal stenosis resulting in intraspinal obstruction, infection, or predominantly psychogenic pain
    - Responsiveness to prior interventions with improvement in physical and functional status to justify repeat blocks or other interventions
    - Repeating interventions only upon return of pain and deterioration in functional status

Delivery of Interventional Technology

Frequency and total number of injections or interventions are key issues, although controversial and rarely addressed. Descriptions of the frequency of various types of interventional techniques are included here. These are based on available evidence and consensus regarding the safety, clinical effectiveness, and cost effectiveness. However, they are not based on evidence synthesis methodology. Descriptions are provided only for commonly used procedures, which frequently require repeat interventions. Medicare, Medicaid and third party payers in each region and state may have rules and regulations different from these guidelines. Interventions permitted per year and per region are also variable.

Facet Joint Injections and Medial Branch Blocks

- In the diagnostic phase, a patient may receive 2 procedures at intervals of no sooner than 1 week or preferably 2 weeks.
- In the therapeutic phase (after the diagnostic phase is completed), the suggested frequency would be 2-3 months or longer between injections, provided that >50% relief is obtained for 6 weeks.
- If the interventional procedures are applied for different regions, they may be performed at intervals of no sooner than 1 week or preferably 2 weeks for most types of procedures. It is suggested that therapeutic frequency remain

at 2 months for each region. It is further suggested that all regions be treated at the same time, provided all procedures can be performed safely.
- In the treatment or therapeutic phase, the interventional procedures should be repeated only as necessary according to the medical necessity criteria, and it is suggested that these be limited to a maximum of 4-6 times for local anesthetic and steroid blocks for a period of 1 year, per region.
- Under unusual circumstances with a recurrent injury or cervicogenic headache, procedures may be repeated at intervals of 6 weeks after stabilization in the treatment phase.

Medial Branch Neurotomy

- The suggested frequency would be 3 months or longer (maximum of 3 times per year) between each procedure, provided that >50% relief is obtained for 10 to 12 weeks.
- The therapeutic frequency for medial branch neurotomy should remain at intervals of at least 3 months for each region. It is further suggested that all regions be treated at the same time, provided all procedures are performed safely.

Epidural Injections

- Epidural injections include caudal, interlaminar, and transforaminal.
- In the diagnostic phase, a patient may receive two procedures at intervals of no sooner than 1 week or preferably 2 weeks except in cancer pain or when a continuous administration of local anesthetic is employed for reflex sympathetic dystrophy.
- In the therapeutic phase (after the diagnostic phase is completed), the suggested frequency of interventional techniques should be 2 months or longer between each injection, provided that >50% relief is obtained for 6 to 8 weeks.
- If the neural blockade is applied for different regions, they may be performed at intervals of no sooner than 1 week and preferably 2 weeks for most types of procedures. The therapeutic frequency may remain at intervals of at least 2 months for each region. It is further suggested that all regions be treated at the same time, provided all procedures can be performed safely.
- In the treatment or therapeutic phase, the interventional procedures should be repeated only as necessary according to medical necessity criteria, and it is suggested that these be limited to a maximum of 4-6 times per year.
- Under unusual circumstances with a recurrent injury, carcinoma, or reflex sympathetic dystrophy, blocks may be repeated at intervals of 6 weeks after diagnosis/stabilization in the treatment phase.

Percutaneous Adhesiolysis

- The number of procedures are preferably limited to:
    - With a 3-day protocol, 2 interventions per year
    - With a 1-day protocol, 4 interventions per year

Spinal Endoscopic Adhesiolysis

- The procedures are preferably limited to a maximum of 2 per year provided the relief was >50% for >4 months.

Sacroiliac Joint Injections

- In the diagnostic phase, a patient may receive two procedures at intervals of no sooner than 1 week or preferably 2 weeks.
- In the therapeutic phase (after the diagnostic phase is completed), the suggested frequency would be 2 months or longer between injections, provided that >50% relief is obtained for 6 weeks.
- If the procedures are done for different joints, they may be performed at intervals of no sooner than 1 week or preferably 2 weeks. It is suggested that therapeutic frequency remain at 2 months for each joint. It is further suggested that both joints be treated at the same time, provided the injections can be performed safely.
- In the treatment or therapeutic phase, the interventional procedures should be repeated only as necessary according to the medical necessity criteria, and it is suggested that they be limited to a maximum of 4-6 times for local anesthetic and steroid blocks over a period of 1 year, per region.
- Under unusual circumstances with a recurrent injury, procedures may be repeated at intervals of 6 weeks after stabilization in the treatment phase.

Sacroiliac Joint Radiofrequency Neurotomy

- The suggested frequency is 3 months or longer between each procedure (maximum of 3 times per year), provided that >50% relief is obtained for 10 to 12 weeks.
- The therapeutic frequency for neurotomy should remain at intervals of at least 3 months for each region. It is further suggested that all regions be treated at the same time, provided all procedures are performed safely.

Definitions:

Designation of Levels of Evidence

Level I

Conclusive: Research-based evidence with multiple relevant and high-quality scientific studies or consistent reviews of meta-analyses

Level II

Strong: Research-based evidence from at least one properly designed randomized, controlled trial; or research-based evidence from multiple properly designed studies of smaller size; or multiple low quality trials

Level III

Moderate: a) Evidence obtained from well-designed pseudorandomized controlled trials (alternate allocation or some other method); b) evidence obtained from comparative studies with concurrent controls and allocation not randomized

(cohort studies, case-controlled studies, or interrupted time series with a control group); c) evidence obtained from comparative studies with historical control, two or more single-arm studies, or interrupted time series without a parallel control group

Level IV

Limited: Evidence from well-designed nonexperimental studies from more than one center or research group; or conflicting evidence with inconsistent findings in multiple trials

Level V

Indeterminate: Opinions of respected authorities, based on clinical evidence, descriptive studies, or reports of expert committees

CLINICAL ALGORITHM(S)

The original guideline document contains the following algorithms:

- A Comprehensive Patient Evaluation
- Approach to Diagnosis of Chronic Low Back Pain without Disc Herniation
- Therapeutic Interventional Techniques in Management of Chronic Low Back Pain
- Approach to Diagnosis of Chronic Neck Pain without Disc Herniation

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

In developing these guidelines, all types of evidence were utilized. The methodology utilized was the best scientific approach available with comprehensive evidence synthesis. Further, if an evidence-based approach failed to provide adequate levels of evidence, consensus and expert opinions have been utilized.

The levels of evidence supporting the guidelines are identified in the "Major Recommendations" field.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Primarily, these guidelines provide information about the scientific basis of recommended procedures
- The guidelines, properly applied, should increase compliance, dispel misconceptions, contribute to appropriate patient expectations, and facilitate the relationship between patients, physicians, and the payers.

POTENTIAL HARMS

Complications from diagnostic and therapeutic interventions are described in the original guideline document in the sections titled "Complications" or "Safety and Complications" under each intervention. Complications, in general, are related to needle placement and drug administration.

CONTRAINDICATIONS

CONTRAINDICATIONS

Contraindications to diagnostic and therapeutic interventional techniques include ongoing bacterial infection, possible pregnancy, bleeding diathesis, and anticoagulant therapy. Precautions are warranted in patients with antiplatelet or anticoagulant therapy, diabetes mellitus and artificial heart valves.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- These guidelines are intended for use by interventional pain physicians and other physicians trained in interventional pain management. However, these guidelines do not constitute inflexible treatment recommendations. It is expected that a provider will establish a plan of care on a case-by-case basis, taking into account an individual patient's medical condition, personal needs, and preferences, and the physician's experience. Based on an individual patient's needs, treatment different from that outlined here could be warranted. These guidelines do not represent a "standard of care."
- The goal of these guidelines is to provide practitioners and payors information to determine whether the available evidence supports the notion of a "standard" for interventional techniques. "Standard" refers to what is applicable to the majority of patients, with a preference for patient convenience and ease of administration without compromising the treatment efficacy or morbidity. It is essential to recognize the difference between "standard" and "standard of care," as utilized by a legal definition.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Clinical Algorithm

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

Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Boswell MV, Trescot AM, Datta S, Schultz DM, Hansen HC, Abdi S, Sehgal N, Shah RV, Singh V, Benyamin RM, Patel VB, Buenaventura RM, Colson JD, Cordner HJ, Epter RS, Jasper JF, Dunbar EE, Atluri SL, Bowman RC, Deer TR, Swicegood JR, Staats PS, Smith HS, Burton AW, Kloth DS, Giordano J, Manchikanti L. Interventional techniques: evidence-based practice guidelines in the management of chronic spinal pain. Pain Physician 2007 Jan;10(1):7-111. [1334 references] PubMed

ADAPTATION

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

DATE RELEASED

2003 (revised 2007 Jan)

GUIDELINE DEVELOPER(S)

American Society of Interventional Pain Physicians - Medical Specialty Society

SOURCE(S) OF FUNDING

American Society of Interventional Pain Physicians

GUIDELINE COMMITTEE

Research and Guideline Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

The Research and Guideline Committee was responsible for developing the guideline. It consisted of the Executive Committee of the Board and all the authors.

Primary Authors: Mark V. Boswell, MD, PhD, Professor of Anesthesiology, Director, Messer-Racz Pain Center, Department of Anesthesiology, Texas Tech University Health Sciences Center; Andrea M. Trescot, MD, Director, Pain Fellowship Program, University of Florida; Sukdeb Datta, MD, Director, Pain Management Services, VA Tennessee Valley Healthcare System, Nashville, TN; David M. Schultz, MD, Medical Advanced Pain Specialists, Assistant Professor, Department of Anesthesiology, University of Minnesota Medical School, Minneapolis, MN; Hans C. Hansen, MD, Medical Director, The Pain Relief Centers, PA; Salahadin Abdi, MD, PhD, Professor and Chief, Division of Pain Medicine, Department of Anesthesiology, Perioperative Medicine, and Pain Management, University of Miami, Miller School of Medicine, Miami, FL; Nalini Sehgal, MD, Associate Professor of Rehabilitation Medicine, Medical Director of Interventional Pain Program, University of Wisconsin School of Medicine and Public Health, Dept. of Orthopedics and Rehabilitation, Madison, WI; Rinoo V. Shah, MD, Assistant Professor, Interventional Pain Management, Department of Anesthesiology, Guthrie Clinic, Sayre, PA; Vijay Singh, MD, Medical Director, Pain Diagnostics Associates; Ramsin M. Benyamin, MD, President, Millennium Pain Center, Clinical Instructor, Department of Surgery, College of Medicine, University of Illinois; Vikram B. Patel, MD, Associate Professor of Anesthesiology, Director of Pain Fellowship Program, Dept. of Anesthesiology, Loyola University Medical Center; Ricardo M. Buenaventura, MD, Dayton Pain Med, Kettering, OH; James D. Colson, MD, Assistant Professor of Anesthesiology, Pain Medicine Service, Department of Anesthesiology, West Virginia University Hospitals, Morgantown, WV; Harold J. Cordner, MD, Florida Pain Management Associates, Sebastian, FL; Richard S. Epter, MD, Augusta Pain Center, Augusta, GA; Joseph F. Jasper, MD, Medical Director, Advanced Pain Medicine Physicians, Tacoma, WA; Elmer E. Dunbar, MD, Medical Director, Pain Control Network, Louisville, KY; Sairam L. Atluri, MD, Tri State Pain Management Institute, Loveland, OH; Richard C. Bowman, MD, PhD, The Center for Pain Relief, Charleston WV; Timothy R. Deer, MD, Director, The Center for Pain Relief and Clinical Professor, Anesthesiology, West Virginia University, Chairman, Committee on Pain Medicine, The American Society of Anesthesiology, Charleston WV; John R. Swicegood, MD, Medical Director, Advanced Interventional Pain and Diagnostics of Western Arkansas, Fort Smith, AR; Peter S. Staats, MD, Interventional Pain Management, Shrewsbury, NJ; Howard S. Smith, MD, PhD, Academic Director of Pain Management, Professor of Anesthesiology, Albany Medical College, Albany, NY; Allen W. Burton, MD, Associate Professor, Section Chief of Cancer Pain Management, Department Anesthesiology and Pain Medicine – Unit 409, Houston, TX; David S. Kloth, MD, Medical Director, Connecticut Pain Care, PC, Danbury CT; James Giordano, PhD, Scholar-in-Residence Center for Clinical Bioethics, Georgetown University Medical Center, Washington, DC; Laxmaiah Manchikanti, MD, CEO, American Society of Interventional Pain Physicians, Medical Director, Pain Management Center of Paducah, Louisville, KY

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Nothing of monetary value was received in the preparation of the guidelines.

ENDORSER(S)

Society of Interventional Pain Management Surgery Centers - Hospital/Medical Center

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Boswell MV, Shah RV, Everett CR, Sehgal N, Mckenzie-Brown AM, Abdi S, Bowman RC, Deer TR, Datta S, Colson JD, Spillane WF, Smith HS, Lucas LF, Burton AW, Chopra P, Staats PS, Wasserman RA, Manchikanti L. Interventional techniques in the management of chronic spinal pain: evidence-based practice guidelines. Pain Phys 2005;8(1):1-47.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the American Society of Interventional Pain Physicians Web site.

Print copies: Available from the American Society of Interventional Pain Physicians, 2831 Lone Oak Road, Paducah, KY 42003; Phone: (270) 554-9412; Fax: (270) 554-8987; email: asipp@asipp.org.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Manchikanti L, Heavner J, Racz GB, Mekhail NA, Schultz DM, Hansen HC, Singh V. Methods for evidence synthesis in interventional pain management. Pain Physician 2003;6:89-111. Electronic copies: Available in Portable Document Format (PDF) from the American Society of Interventional Pain Physicians Web site.
- Manchikanti L, Abdi S, Lucas LF. Evidence synthesis and development of guidelines in interventional pain management. Pain Physician 2005;8:73-86. Electronic copies: Available in Portable Document Format (PDF) from the American Society of Interventional Pain Physicians Web site.
- Datta S, Everett CR, Trescot AM, Schultz DM, Adlaka R, Abdi S, Atluri SL, Smith HS, Shah RV. An updated systematic review of diagnostic utility of selective nerve root blocks. Pain Physician 2007;10:113-128. Electronic copies: Available in Portable Document Format (PDF) from the American Society of Interventional Pain Physicians Web site.
- Trescot AM, Chopra P, Abdi S, Datta S, Schultz DM. Systematic review of effectiveness and complications of adhesiolysis in the management of chronic spinal pain: An update. Pain Physician 2007;10:129-146. Electronic copies: Available in Portable Document Format (PDF) from the American Society of Interventional Pain Physicians Web site.
- Buenaventura RM, Shah RV, Patel V, Benyamin R, Singh V. Systematic review of discography as a diagnostic test for spinal pain: An update. Pain Physician 2007;10:147-164. Electronic copies: Available in Portable Document Format (PDF) from the American Society of Interventional Pain Physicians Web site.
- Hansen HC, McKenzie-Brown AM, Cohen SP, Swicegood JR, Colson JD, Manchikanti L. Sacroiliac joint interventions: A systematic review. Pain Physician 2007;10:165-184. Electronic copies: Available in Portable Document Format (PDF) from the American Society of Interventional Pain Physicians Web site.

- Abdi S, Datta S, Trescot AM, Schultz DM, Adlaka R, Atluri SL, Smith HS, Manchikanti L. Epidural steroids in the management of chronic spinal pain: A systematic review. Pain Physician 2007;10:185-212. Electronic copies: Available in Portable Document Format (PDF) from the American Society of Interventional Pain Physicians Web site.
- Seghal N, Dunbar EE, Shah RV, Colson JD. Systematic review of diagnostic utility of facet (zygapophysial) joint injections in chronic spinal pain: An update. Pain Physician 2007;10:213-228. Electronic copies: Available in Portable Document Format (PDF) from the American Society of Interventional Pain Physicians Web site.
- Boswell MV, Colson JD, Sehgal N, Dunbar EE, Epter R. A systematic review of therapeutic facet joint interventions in chronic spinal pain. Pain Physician 2007;10:229-254. Electronic copies: Available in Portable Document Format (PDF) from the American Society of Interventional Pain Physicians Web site.

Print copies: Available from the American Society of Interventional Pain Physicians, 2831 Lone Oak Road, Paducah, KY 42003; Phone: (270) 554-9412; Fax: (270) 554-8987; email: asipp@asipp.org.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on July 21, 2003. The information was verified by the guideline developer on July 31, 2003. This NGC summary was updated by ECRI Institute on May 16, 2005. The information was verified by the guideline developer on June 6, 2005. This NGC summary was updated by ECRI Institute on April 18, 2007. The information was verified by the guideline developer on May 7, 2007.

COPYRIGHT STATEMENT

DISCLAIMER

NGC DISCLAIMER

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at http://www.guideline.gov/about/inclusion.aspx .

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

Date Modified: 11/3/2008