

Analytical Review of Guidelines

Translating Evidence to Practice: A Critical and Analytical Summary of the Evidence-Based Guidelines of Facet Joint Interventions in Management of Chronic Spinal Pain

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Background: Chronic axial spinal pain is a major contributor to disability and healthcare expenditures, with facet joints recognized as one of the established sources of pain.

Study Design: Summary and structured synthesis of a comprehensive, multidisciplinary, evidence-based clinical practice guideline developed by systematic review of the literature, Grading of Recommendations Assessment, Development, and Evaluation (GRADE) appraisal, and modified Delphi consensus.

Objectives: This article summarizes the recommendations of the 2026 comprehensive evidence-based guidelines for facet joint interventions in the management of chronic spinal pain, published by the American Society of Interventional Pain Physicians (ASIPP). The summary is organized around the recommendations themselves, presenting for each the underlying evidence, the assigned level of evidence, the strength of recommendation, and the practical implications for clinical practice, documentation, and coverage policy.

Methods: Literature was searched from 1966 through October 2025. Methodologic quality was assessed using multiple instruments for diagnostic and therapeutic studies. Evidence was graded on a 5-level modified ASIPP scale (Level I, strong, through Level V, consensus-based) supplemented by GRADE certainty ratings, and the strength of each recommendation was rated as strong, moderate, or weak using a scheme adapted from the National Guideline Clearinghouse Extent Adherence to Trustworthy Standards (NEATS) instrument. Institute of Medicine (IOM) standards for trustworthy guidelines were followed. Consensus required at least 80% agreement among eligible panelists without a primary conflict of interest.

Results: For non-interventional diagnosis, the level of evidence ranged from I to V, with strong recommendations for structured physical examination and for mandatory fluoroscopic or computed tomography (CT) guidance, and weak recommendations for advanced imaging. For interventional diagnosis, the evidence was Level I to II in the lumbar spine and Level II in the cervical and thoracic spine, with moderate to strong recommendations for controlled diagnostic medial branch blocks using an 80% pain-relief threshold.

For therapeutic interventions, the evidence was Level II with moderate recommendations for cervical and lumbar radiofrequency ablation (RFA) and for therapeutic facet joint nerve blocks in all three spinal regions; Level III with weak to moderate recommendations for thoracic RFA; and Level III to V with weak recommendations for intraarticular injections. For special considerations, evidence ranged from Level II to Level V, addressing repeat interventions, lesion parameters, electrode selection and position, stimulation testing, metallic and electronic implants, antithrombotic therapy, and sedation.

Cost-utility analyses demonstrated costs of \$4,664 to \$5,446 per quality-adjusted life year for lumbar interventions and \$4,994 to \$5,364 for cervical interventions.

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Limitations: The recommendations rest on a body of literature that remains heterogeneous, with a paucity of high-quality randomized trials in the thoracic spine, in intraarticular therapy, and in most special-consideration domains.

Conclusion: Facet joint interventions provide clinically meaningful and cost-effective benefits to appropriately selected patients with chronic axial spinal pain when diagnosis is established by controlled diagnostic blocks and therapy is delivered under image guidance with defined technical parameters. The 2026 ASIPP recommendations offer a structured, graded framework linking patient selection, procedural technique, safety precautions, and documentation. Further research is needed in the thoracic spine, in intraarticular therapy, and on the comparative effectiveness of therapeutic nerve blocks versus RFA.

Key words: Chronic spinal pain, facet joint, zygapophysial joint, interventional techniques, diagnostic blocks, medial branch blocks, radiofrequency ablation, intraarticular injections, evidence-based guidelines, level of evidence, strength of recommendation, cost-utility

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Chronic spinal pain, whether it occurs in isolation or in association with extremity pain, chest wall pain, or headache, remains among the leading causes of disability and health care expenditure in the United States and worldwide (1-3). The burden is not static. Data from the National Center for Health Statistics (NCHS) for 2023 demonstrated that 24.3% of United States adults experienced chronic pain and 8.5% experienced high-impact chronic pain, compared with 20.5% and 7.5%, respectively in 2019 (4). Analyses of National Health Interview Survey (NHIS) data from 2019 through 2023 have translated these proportions into an estimated 60 million Americans living with chronic pain and 21 million living with high-impact chronic pain, the highest prevalence ever recorded in that survey. Site-specific data indicate that the number of individuals reporting back and neck pain rose from 27.4 million in 2019 to 31.0 million in 2023, an increase of 13%, along with COVID hypothesized to account for a substantial share of that rise (5).

The economic dimension is equally striking. United States expenditure on personal health care and public health related to spinal pain reached \$134.5 billion in 2016, a 53.5% increase over the \$87.6 billion recorded in 2013, while expenditure attributable to musculoskeletal disorders rose from \$183.5 billion to \$263.3 billion over the same interval (6). National health expenditures grew 8.2% in 2024, exceeding \$5.263 trillion, and are projected to consume 20.3% of the economy by 2033 (7). These increases have occurred against a backdrop of falling utilization of interventional techniques and of physician fee schedule reductions of 41% between 2001 and 2025, projected to reach 45% by 2026 (8-10). The result is a health system in which the aggregate

cost of managing spinal pain continues to rise even as access to specific, targeted, image-guided interventions contracts.

Prevalence varies by spinal region, with the lumbar spine most frequently affected (43%), followed by the cervical spine (32%) and the thoracic spine (13%) (11). One-year prevalence estimates for low back pain and neck pain range from 22% to 65%, while lifetime prevalence estimates reach 84% and 67%, respectively. Chronic spinal pain persists beyond one year in approximately 60% of patients even after conservative treatment or surgery (1,12). Longitudinal data in community-dwelling older adults show that 77% continue to report back pain after 2 years, with 14% experiencing severe pain that interferes with activities of daily living (13). Individuals with chronic low back or neck pain are approximately 3 times more likely than the general population to carry comorbid conditions, and chronic spinal pain is strongly associated with depression, generalized anxiety disorder, somatization, and cognitive impairment (14).

Within this population, the facet or zygapophysial joints are one of the established and reproducibly identifiable sources of axial pain. They are true synovial joints, richly innervated by the medial branches of the dorsal rami, and can generate pain in the cervical, thoracic, and lumbar spine (15). Their clinical importance is inseparable from methodological difficulty: no element of history, no physical examination maneuver, and no imaging finding is pathognomonic. Degenerative change seen on radiographs, computed tomography, or magnetic resonance imaging (MRI) correlates poorly with pain (16-22). The diagnosis is therefore established by response to controlled diagnostic blockade of the medial branches, a reference standard whose validity

depends critically on the relief threshold applied, the number of blocks performed, the volume of injectate, and the avoidance of confounding sedation and opioid administration (23-25).

Since the publication of the 2020 American Society of Interventional Pain Physicians (ASIPP) facet joint intervention guidelines (26), the evidence base has expanded significantly. New systematic reviews and meta-analyses have been published for therapeutic facet joint nerve blocks, for therapeutic intraarticular injections, and for radiofrequency ablation (RFA) (27-29). An updated best-evidence synthesis of the diagnostic accuracy and utility of facet joint injections has appeared (23). Multisociety consensus recommendations on corticosteroid injections for facet joint and sacroiliac joint pain (30), consensus practice guidelines for cervical and lumbar facet joint pain from international multispecialty working groups (31,32), and a German national guideline on radiofrequency denervation developed under the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) framework (33) have all been issued. At the same time, Local Coverage Determinations (LCDs) and commercial medical policies governing facet joint interventions have been repeatedly revised, with substantive consequences for access (34,35). An updated, explicitly graded synthesis was therefore required.

The present article translates evidence into practice through a critical and analytical summary. Consistent with the purpose of a summary article, and in keeping with the format used for comparable national guideline summaries in the spine literature (33), the emphasis here falls on the recommendations. Each recommendation is presented in full, accompanied by a condensed account of the evidence from which it was derived, the assigned level of evidence, the assigned strength of recommendation, and a short statement of what the recommendation means at the point of care. Readers requiring the complete evidence tables, the full methodologic quality assessments, and the individual study appraisals are referred to the primary guideline document (1).

METHODS

Rationale, Objective, and Scope

The National Uniform Claims Committee (NUCC) defines interventional pain management as a discipline of medicine devoted to the diagnosis and treatment of pain-related disorders principally through the applica-

tion of interventional techniques, either independently or in conjunction with other treatment modalities (36). The Medicare Payment Advisory Commission (MedPAC) defines interventional pain management techniques as minimally invasive procedures including percutaneous precision needle placement of medications into targeted areas, ablation of targeted nerves, and the placement of intrathecal infusion pumps and spinal cord stimulators (37). The stated objective of the 2026 guidelines is to provide a rational and systematic approach to the application of diagnostic and therapeutic interventional techniques in the management of facet joint pain (1).

The guidelines and present critical and analytical summary are applicable across specialties but are specifically intended for interventional pain physicians and for surgical specialties employing interventional techniques. Their purpose is to provide patients, practitioners, regulators, and payers with sufficient information to determine whether the available evidence supports the medical necessity of a facet joint intervention. They explicitly do not constitute a standard of care, and the guideline document states that the recommendations are not inflexible treatment prescriptions.

Key Questions

Twenty key questions were prespecified and used to structure the evidence review. These questions span the epidemiologic and economic context, the pathophysiologic basis of facet joint pain, non-interventional and interventional diagnosis, therapeutic effectiveness, a series of technical and safety considerations, cost utility, adverse consequences, and the practical framework for diagnostic and therapeutic intervention. They are reproduced in Table 1.

Composition of the Panel and Management of Conflicts of Interest

A multidisciplinary panel of 48 experts was convened. The panel comprised 31 members whose primary specialty was anesthesiology, 6 in physical medicine and rehabilitation, 3 in radiology, 2 in internal medicine, 2 statisticians, and one each in emergency medicine and neurology, together with one graduate student. Methodologists, including epidemiologists, statisticians, ethicists, and health services researchers experienced in the conduct of systematic reviews, were represented. The panel was both geographically and professionally diverse, including academic and community-based practitioners.

Table 1. *The 20 key questions addressed by the 2026 ASIPP facet joint intervention guidelines.*

No.	Key question
1	What is the impact of chronic spinal pain on health care resources?
2	What are the trends in utilization of treatment modalities in the management of spinal pain?
3	What is the pathophysiologic and structural basis of spinal facet joint pain?
4	What is the evidence regarding the diagnostic accuracy and value of non-interventional methods in the diagnosis of facet joint pain?
5	What is the evidence regarding the diagnostic accuracy and value of interventional procedures in the diagnosis of facet joint pain?
6	What is the evidence supporting the effectiveness of commonly utilized therapeutic facet joint interventions, including RFA, facet joint nerve blocks, and intraarticular injections?
7	Are repeat facet joint interventions, specifically RFA, safe and effective?
8	What is the impact of temperature, duration of lesioning, and lesion size on outcomes?
9	Is there a difference in outcomes or a preference for specific types of electrodes and needles?
10	Is the position of the electrode relative to the nerve, either parallel or perpendicular, clinically relevant?
11	Is sensory or motor test stimulation necessary, and is there a preference for one over the other?
12	Is RFA safe and effective in patients with metallic implants?
13	What safety precautions should be observed in patients with cardiac pacemakers and defibrillators?
14	What safety precautions should be observed in patients with deep brain stimulators, spinal cord stimulators, intrathecal systems, and other implants?
15	What is the evidence regarding the cost-effectiveness of interventional techniques in managing spinal facet joint pain?
16	What are the side effects and adverse consequences associated with facet joint interventions?
17	What precautions should be followed in patients receiving anticoagulant and antiplatelet therapy?
18	What are the guidelines for diagnostic interventions in the management of spinal facet joint pain?
19	What are the guidelines for therapeutic interventions in the management of spinal facet joint pain?
20	What are the guidelines regarding the type and frequency of diagnostic and therapeutic facet joint interventions?

Source: Manchikanti L, Sanapati M, Albers SL, et al. Updated 2026 comprehensive evidence-based guidelines for facet joint interventions in the management of chronic spinal pain: American Society of Interventional Pain Physicians (ASIPP) guidelines. *Pain Physician* 2026; 29:S1-S228 (1).

Potential conflicts of interest for all panel members over the preceding 5 years were evaluated before finalization. Conflicts were defined broadly and extended beyond financial relationships to include personal experience, practice patterns, academic interests, and promotional activities. Members with potential conflicts were recused from discussion or preparation of the sections in which the conflict existed and agreed not to discuss any aspect of the guidelines with relevant industry representatives before publication. Editorial safeguards were implemented to prevent influence by authors with industry funding. The guidelines were commissioned, developed, edited, and endorsed by ASIPP without external funding; internal funding was limited to preparation of the publication.

Evidence Review and Literature Search

Searches were conducted without language restriction from 1966 through October 2025 across PubMed, the Cochrane Library, Google Scholar, the United States National Guideline Clearinghouse, ClinicalTrials.gov, prior systematic reviews and their cross-references,

and non-indexed journals and abstracts (1). The search strategy combined terms for chronic cervical, thoracic, and low back pain with terms for facet or zygapophyseal joint pain and for the interventions of interest, including medial branch block, diagnostic block, radiofrequency, and intraarticular injection.

For therapeutic modalities, short-term relief was defined as improvement in pain and function of less than 6 months duration, and long-term improvement as relief lasting at least one year. All included studies were required to report pain relief as a primary outcome; functional status was captured as a secondary outcome where available.

Methodologic Quality Assessment

Methodologic quality and risk of bias for randomized controlled trials were assessed using Cochrane review criteria and the Interventional Pain Management Techniques – Quality Appraisal of Reliability and Risk of Bias (IPM-QRB) instrument (38,39). Nonrandomized studies were appraised with Interventional Pain Management Techniques–Quality Appraisal of Reli-

ability and Risk of Bias Assessment for Nonrandomized Studies (IPM-QRBNR), and diagnostic accuracy studies with Quality Appraisal for Reliability Studies (QAREL) criteria. For Cochrane criteria, scores of 8 to 13 denoted high quality, 4 to 7 moderate quality, and less than 4 low quality. For IPM-QRB and IPM-QRBNR, scores of 32 to 48 denoted high quality, 16 to 31 moderate quality, and below 16 low quality. Analyses were repeated only where new studies had appeared since the preceding publication.

Grading of Evidence and Strength of Recommendation

Two complementary frameworks were applied. The GRADE framework was used to characterize the certainty of evidence as very low, low, moderate, or high, with certainty rated down for risk of bias, imprecision, inconsistency, indirectness, and publication bias, and rated up for a large magnitude of effect, a dose-response gradient, or residual confounding that would act to diminish rather than inflate the observed effect (40,41). In parallel, the qualitative modified ASIPP approach to grading evidence of therapeutic effectiveness was applied, assigning one of five levels from Level I, strong, to Level V, consensus based (42). These are reproduced in Table 2.

The strength of each recommendation was rated separately, using a scheme adapted from the National Guideline Clearinghouse Extent Adherence to Trustworthy Standards (NEATS) instrument (43) and modified for ASIPP guidelines. A strong recommendation reflects high confidence that the recommendation represents best practice, based on strong evidence of a true net effect, consistent results with no or minor exceptions, minimal concern regarding study quality, and a high degree of panel agreement; under the ASIPP adaptation, consensus was reached that there is high

certainty that the net benefit is substantial. A moderate recommendation reflects moderate confidence, based on good evidence of a true net effect with few exceptions; consensus was reached that there is high certainty of moderate net benefit, or moderate certainty of moderate to substantial net benefit. A weak recommendation reflects some confidence that the recommendation offers the best current guidance, based on limited evidence, consistent results with important exceptions, or concerns about study quality; consensus was reached that there is potential improvement in certain individuals or groups based on individual professional judgement and shared decision-making.

The separation of these two axes is essential to interpreting the recommendations correctly. A recommendation may carry a strong strength of recommendation despite Level III evidence where the net benefit is unambiguous and the panel agreement complete, as is the case for physical examination in patient selection. Conversely, a recommendation may carry only weak strength despite the existence of multiple observational studies where the evidence is consistent but limited in design, as is the case for RFA in patients with metallic implants.

Adherence to Trustworthy Standards, Consensus, and Updating

Institute of Medicine (IOM) standards for trustworthy clinical practice guidelines and the NEATS instrument were followed (43-45). A modified Delphi technique was used to minimize bias arising from group interaction. Panelists without a primary conflict of interest voted on the approval of each guideline statement, and each panelist was permitted to propose revisions to the wording and to add qualifying remarks concerning implementation. Consensus, and hence inclusion in the final document, required at least 80% agreement among eligible panel

Table 2. *Modified ASIPP qualitative approach to grading the evidence of therapeutic effectiveness.*

Level	Descriptor	Definition
I	Strong	Evidence obtained from multiple relevant high-quality randomized controlled trials
II	Moderate	Evidence obtained from at least one relevant high-quality randomized controlled trial, or from multiple relevant moderate- or low-quality randomized controlled trials
III	Fair	Evidence obtained from at least one relevant moderate- or low-quality randomized trial, or from at least one relevant high-quality nonrandomized trial or observational study together with multiple moderate- or low-quality observational studies
IV	Limited	Evidence obtained from multiple moderate- or low-quality relevant observational studies
V	Consensus based	Opinion or consensus of a large group of clinicians and/or scientists

Modified from: Manchikanti L, Falco FJE, Benyamin RM, Kaye AD, Boswell MV, Hirsch JA. A modified approach to grading of evidence. *Pain Physician* 2014; 17:E319-E325 (42).

members. Thirty-nine of the 48 authors participated in the voting process. All 37 recommendation items achieved 100% acceptance. The guidelines are scheduled for revision within 5 years, or sooner should there be a material change in scientific evidence, public policy, or reported adverse events, and in any event before 2030.

RESULTS

Overview of the Recommendations

A total of thirty recommendations were issued. Because several of these are subdivided by spinal region or by device category, the total number of discrete graded recommendation items is 37. All 37 achieved 100% acceptance among the 39 voting panelists. The recommendations are grouped into six domains: non-interventional diagnosis, interventional diagnosis, therapeutic facet joint interventions, special considerations, antithrombotic therapy, and sedation. Table 3 presents all recommendations in condensed form with their assigned level of evidence and strength of recommendation. Figure 1 shows the distribution of both gradings across the recommendation set.

Several features of that distribution merit comment. First, Level II evidence predominates, accounting for 15 of 37 items. This reflects a literature in which at least one high-quality randomized trial, or several moderate-quality trials, exists for most core questions, but in which the multiple high-quality trials required for Level I are available only for the mandatory use of image guidance and, in part, for lumbar diagnostic blockade. Second, moderate is the most common strength of recommendation, assigned to 14 items, with a further 4 rated moderate to strong and 8 rated strong. Third, weak recommendations cluster almost entirely within two areas: intraarticular therapy and the technical or device-related special considerations. This is the clearest single signal in the guideline. Where the question is whether to treat facet joint pain with medial branch interventions after controlled diagnostic blockade, the evidence is moderate and the recommendations are correspondingly firm. Where the question concerns the fine detail of hardware, electrode geometry, or management around implanted devices, the evidence thins rapidly and the recommendations become permissive rather than directive.

Non-Interventional Diagnosis (Recommendations 1 to 5)

History and Physical Examination

The panel considered whether facet joint pain

can be identified before interventional testing and concluded that history and examination cannot establish the diagnosis but can and should determine who is appropriately selected for diagnostic blockade. The distinction is central. Studies in the cervical spine have shown positive correlation between manual examination findings or muscular stiffness and the symptomatic level, but poor specificity overall (33). In the lumbar spine, better response to blockade has been associated with less leg pain, a negative straight leg raise, and paraspinal muscle tenderness, while the criteria proposed by Revel and colleagues, which yielded 92% sensitivity and 80% specificity when at least 5 of 7 items were present, have not been reproduced consistently in subsequent work (33). The panel therefore assigned Level II evidence to the use of a defined clinical profile for patient selection, and Level III evidence to physical examination as a diagnostic instrument, while attaching a strong strength of recommendation to both on the grounds that the net benefit of disciplined selection is substantial and the potential harm negligible.

Recommendation 1. Patient selection for diagnostic facet joint nerve blocks

The level of evidence is II for selecting patients for facet joint nerve blocks after at least 3 months of pain onset and failure of conservative management in patients demonstrating axial pain, tenderness over the facet joints, reduced range of motion with exacerbation of pain during extension and lateral rotation, pain relief with rest, and absence of a radicular pattern, with strong strength of recommendation for physical examination and assessment.

Level of evidence: II

Strength of recommendation: Strong

Recommendation 2. Physical examination in the diagnosis of facet joint pain

The level of evidence is III for the accurate diagnosis of facet joint pain by physical examination based on symptoms and signs, with strong strength of recommendation.

Level of evidence: III

Strength of recommendation: Strong

In practice, these two recommendations together define the clinical gate. The patient who is appropriate for a diagnostic medial branch block has predominantly axial pain of at least 3 months duration that has failed conservative management, tenderness over the facet joints, restricted and pain-

Facet Joint Interventions for Chronic Spinal Pain: Guideline Summary

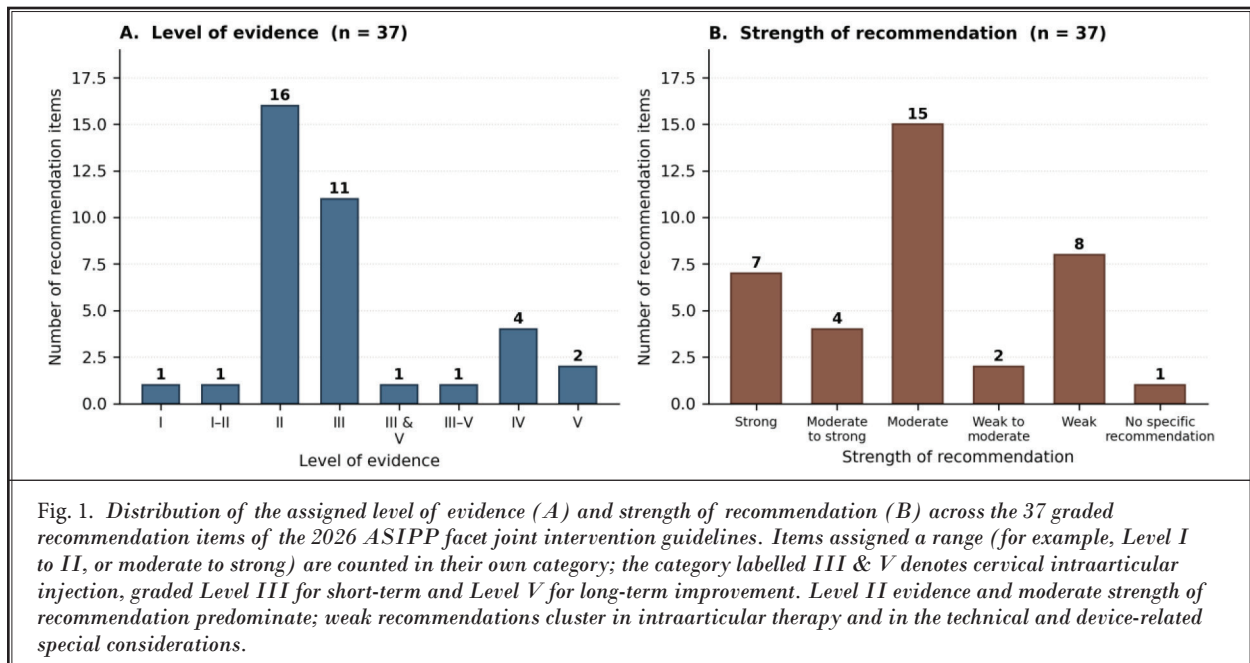
Table 3. Summary of the 37 graded recommendation items of the 2026 ASIPP facet joint intervention guidelines.

No.	Recommendation (condensed)	Level of evidence	Strength
NON-INTERVENTIONAL DIAGNOSIS			
1	Patient selection for facet joint nerve blocks ≥ 3 months after onset and after failure of conservative management, in patients with axial pain, facet tenderness, reduced range of motion with exacerbation on extension and lateral rotation, relief with rest, and no radicular pattern	II	Strong
2	Accurate diagnosis of facet joint pain by physical examination based on symptoms and signs	III	Strong
3	Mandatory fluoroscopic or computed tomography guidance for all facet joint interventions	I	Strong
4	Use of SPECT to identify painful facet joints before diagnostic facet joint nerve blocks	III	Weak
5	Scintigraphy, MRI, and CT for identifying painful facet joints	V	Weak
INTERVENTIONAL DIAGNOSIS			
6	Lumbar spine: diagnosis of lumbar facet joint pain by lumbar diagnostic facet joint nerve blocks	I to II	Moderate to strong
7	Cervical spine: diagnosis of cervical facet joint pain by cervical diagnostic facet joint nerve blocks	II	Moderate
8	Thoracic spine: diagnosis of thoracic facet joint pain by thoracic diagnostic facet joint nerve blocks	II	Moderate
9	Interventional diagnosis applied in the chronic phase, after 3 months from onset and after failure of conservative management	II	Strong
10	Caution in patients with combined depression, anxiety, and somatization disorder	III	Moderate
11	Intraoperative opioids may affect diagnostic validity; opioids should be avoided	II	Strong
12	Benzodiazepines do not affect diagnostic validity and may be used in low doses for mild sedation	II	Moderate
13	Mild sedation may be required during diagnostic facet joint interventions	III	Moderate
14	Prevalence and false-positive rates vary with multiple-region involvement, prior surgery, and age; these factors must be considered	III	Moderate
THERAPEUTIC FACET JOINT INTERVENTIONS			
15a	Clinical effectiveness of cervical RFA	II	Moderate
15b	Clinical effectiveness of thoracic RFA	III	Weak to moderate
15c	Clinical effectiveness of lumbar RFA	II	Moderate
16a	Clinical effectiveness of cervical intraarticular facet joint injections	III (short term); V (long term)	Weak
16b	Clinical effectiveness of thoracic intraarticular facet joint injections	III	Weak to moderate
16c	Clinical effectiveness of lumbar intraarticular facet joint injections	IV	Weak
17a	Clinical effectiveness of therapeutic cervical facet joint nerve blocks	II	Moderate
17b	Clinical effectiveness of therapeutic thoracic facet joint nerve blocks	II	Moderate
17c	Clinical effectiveness of therapeutic lumbar facet joint nerve blocks	II	Moderate
SPECIAL CONSIDERATIONS			
18	Safety and effectiveness of repeat facet joint interventions, including repeat RFA, with outcomes comparable to the initial procedure	II	Moderate to strong
19	Temperature, lesion duration, and lesion size: 18-gauge cannula with 10 mm active tip in the lumbar spine; 20-gauge cannula with 5 or 10 mm active tip in the cervical and thoracic spine	II	Strong
20	Type of electrode or needle for RFA	IV	No specific recommendation
21	Electrode position, parallel or perpendicular to the nerve	IV	Weak
22	Motor and/or sensory stimulation testing before RFA	II	Strong
23	RFA in patients with metallic implants	IV	Weak
24a	Safety and effectiveness of RFA, including bipolar RFA with 15 cm separation, in patients with cardiac pacemakers after appropriate preparation	III	Moderate
24b	Therapeutic facet joint nerve blocks instead of RFA in patients with cardiac pacemakers	II	Moderate to strong

Table 3 cont. Summary of the 37 graded recommendation items of the 2026 ASIPP facet joint intervention guidelines.

No.	Recommendation (condensed)	Level of evidence	Strength
25	RFA, including bipolar RFA with 15 cm separation, in patients with implantable stimulators and intrathecal infusion systems	III to V	Weak
26	RFA in patients with stimulators and pumps implanted in the cervical spine, including hypoglossal and vagus nerve stimulators and cervical leads	V	Weak
27	Therapeutic facet joint nerve blocks as a substitute for RFA in patients with stimulators and pumps, particularly in the cervical and thoracic spine	II	Moderate to strong
ANTITHROMBOTIC THERAPY			
28	Facet joint interventions are moderate- to low-risk procedures; antithrombotic therapy may be continued based on the patient's overall clinical status and the ASIPP antithrombotic guidelines	III	Moderate
SEDATION			
29	Mild sedation may be required during therapeutic facet joint interventions	III	Moderate
30	Moderate sedation or MAC may be required for RFA	III	Moderate

CT = computed tomography; MRI = magnetic resonance imaging; RFA = radiofrequency ablation; SPECT = single photon emission computed tomography. Rows in capitals are domain headers and are not graded items.



ful extension and lateral rotation, relief with recumbency, and no radicular pattern. The absence of any one of these findings does not exclude facet joint pain; the presence of all of them does not establish it. What the profile does is raise the pretest probability sufficiently to justify the diagnostic procedure and, equally important, to justify it to a payer.

Image Guidance

The single Level I recommendation in the entire

guideline concerns image guidance. The evidence that unguided or landmark-based facet joint injection is unreliable is extensive and consistent, and both LCDs and commercial medical policies treat procedures performed without fluoroscopic or computed tomography (CT) guidance as not reasonable and necessary (34,35). Ultrasound and magnetic resonance guidance are explicitly excluded. The panel assigned Level I evidence and a strong strength of recommendation and framed the requirement as mandatory rather than advisory.

Recommendation 3. Mandatory image guidance for all facet joint interventions

The level of evidence is I with strong strength of recommendation for mandatory fluoroscopic or computed tomography (CT) guidance for all facet joint interventions.

Level of evidence: I

Strength of recommendation: Strong

Advanced Imaging in Identifying the Painful Joint

The evidence that anatomic imaging identifies the symptomatic facet joint is poor and, in several studies, negative. Radiographic cervical spondylosis has shown no association with neck, arm, or occipital pain in case-control and population studies (17-20). Computed tomography evidence of facet osteoarthritis has neither identified the painful joint nor predicted the outcome of intraarticular injection; in one prospective, single-blind, placebo-controlled series of 63 patients, joint scores did not differ according to response to intraarticular local anesthetic or placebo (16). A retrospective series found asymptomatic cervical facet arthritis in 33.4% of patients scanned for non-spinal indications (22). The panel therefore assigned Level V evidence, that is, consensus-based, to scintigraphy, MRI, and CT for the purpose of identifying the painful joint, with a weak strength of recommendation.

Single photon emission computed tomography (SPECT) occupies a different position. Randomized and observational data indicates that SPECT-positive joints respond better to injection than SPECT-negative joints. In one randomized, double-blind, placebo-controlled trial, 71% of patients in the SPECT/CT-positive group achieved more than 50% pain reduction after medial branch block compared with 43% of controls (46). In a prospective comparison, 85.7% of SPECT-positive patients achieved more than 50% reduction at 2 weeks compared with 20% of SPECT-negative patients (47). A separate study found SPECT sensitivity of 1.0 and specificity of 0.71, with a negative predictive value of 1.0, leading its authors to propose SPECT as a screening tool (48). Against these findings, another randomized placebo-controlled trial reported only moderate agreement between SPECT/CT and placebo-controlled medial branch blocks, with sensitivity 0.57 and specificity 0.77 (49), and did not recommend SPECT/CT as a first-line tool. The panel resolved this by assigning Level III evidence with a weak strength of recommendation: SPECT may be used to enrich the population proceeding to diagnostic blockade (50), but it does not replace blockade and is not required.

Recommendation 4. SPECT in identifying painful facet joints

The level of evidence is III supporting the use of SPECT in identifying painful facet joints prior to diagnostic facet joint nerve blocks, with weak strength of recommendation.

Level of evidence: III

Strength of recommendation: Weak

Recommendation 5. Scintigraphy, MRI, and CT in identifying painful facet joints

The level of evidence is V with weak strength of recommendation for scintigraphy, MRI, and CT in identifying painful facet joints.

Level of evidence: V

Strength of recommendation: Weak

Recommendations 3 and 5 read as a pair and are frequently confused. Fluoroscopy or CT is mandatory as procedural guidance, that is, for the accurate delivery of the injectate to the target. Neither modality, nor MRI, nor planar scintigraphy has an established role in selecting which joint to target on the basis of imaging appearance. Ultrasound has likewise not been validated for this purpose, and positron emission tomography (PET), whether as PET/CT or PET/MR, remains of limited availability and has not been assessed against controlled diagnostic blockade (51-54). The distinction between imaging for delivery and imaging for selection is the substance of these two recommendations.

Interventional Diagnosis (Recommendations 6 to 14)**Prevalence, False-Positive Rates, and The Case for Controlled Blocks**

The diagnostic recommendations rest on a body of prevalence literature accumulated over 3 decades. Eighteen studies of the lumbar spine were rated high quality against QAREL criteria (24,25,55-71); under GRADE, 9 were high quality, 7 moderate, and one low. Eight studies meet both high-quality QAREL and high-quality GRADE criteria utilizing $\geq 80\%$ pain relief as the criterion standard included 2,147 patients. Across the highest quality-controlled studies, the prevalence of lumbar facet joint pain has ranged from 16% to 45% and the presumed false-positive rate of single blocks from 25% to 50% (23,24,55-70). In the cervical spine, prevalence estimates have ranged from 36% to 67% with false-positive rates of 26% to 63%, based on 12

controlled diagnostic studies (23,24,68,72-76). In the thoracic spine, utilizing 80% pain relief criterion, 3 studies reported prevalence of 34% to 48% with false-positive rates of 42% to 58% (24,69,75).

The dispersion in these figures is not noise; it is a direct function of methodology. The single most influential variable is the relief threshold. In a series of 181 patients, applying a 50% relief standard produced a prevalence of 61%, whereas an 80% standard applied to the same cohort produced a prevalence of 31%, with corresponding false-positive rates of 17% and 42% (25). In further comparison, single blocks at a 50% relief standard yielded a prevalence of 73% against 61% for dual blocks; at an 80% standard the corresponding figures were 53% and 31% (25). The clinical consequence of this arithmetic was demonstrated by long-term follow-up. Among 152 patients diagnosed by dual blocks with 80% relief, 93% continued to respond to therapeutic facet joint nerve blocks at one year and 89.5% retained the diagnosis at 2 years (71). Among 110 patients diagnosed with only 50% relief, the diagnosis was sustained at 2 years in 51% (25). Nearly half of the patients selected by the more permissive criterion did not in fact have facet joint pain.

The number of regions involved also matters. In patients presenting with low back pain alone, the prevalence of lumbar facet joint pain was 21% with a false-positive rate of 17%; in patients with low back pain and involvement of other spinal regions, prevalence rose to 41% with a false-positive rate of 27% (67). Age exerts a similar effect, with prevalence of 30% below 65 years and 52% above 65 years in a matched series of 100 patients (64). Figure 2 and Fig. 3 summarize the regional evidence gradings and the prevalence and false-positive data respectively.

An opposing position exists in the literature and is addressed directly by the panel. Several investigators have argued that a single block, or no block at all, is sufficient before RFA, and have reported that no significant difference in radiofrequency outcomes is detectable across relief cutoffs above 50% (77-79). It is notable that these analyses have themselves used a 50% relief standard with a single block. In the same group of studies, denervation success rates were 33% with no diagnostic block, 39% with a single block, and 64% with comparative blocks (77), a gradient that supports rather than undermines controlled blockade. The panel concluded that long-term maintenance of the diagnosis, rather than short-term denervation response, is the appropriate criterion for validity, and retained the dual-block, 80% relief standard.

Recommendation 6. Lumbar diagnostic facet joint nerve blocks

The level of evidence is I to II with moderate to strong strength of recommendation for diagnosing lumbar facet joint pain by performing lumbar diagnostic facet joint nerve blocks.

Level of evidence: I to II

Strength of recommendation: Moderate to strong

Recommendation 7. Cervical diagnostic facet joint nerve blocks

The level of evidence is II with moderate strength of recommendation for the diagnosis of cervical facet joint pain by performing cervical diagnostic facet joint nerve blocks.

Level of evidence: II

Strength of recommendation: Moderate

Recommendation 8. Thoracic diagnostic facet joint nerve blocks

The level of evidence is II with moderate strength of recommendation for the diagnosis of thoracic facet joint pain by performing thoracic diagnostic facet joint nerve blocks.

Level of evidence: II

Strength of recommendation: Moderate

Acute vs. Chronic Pain Model: A Philosophical Discordance

The philosophical approach and mathematical validation of controlled diagnostic blocks have been extensively studied (1,23), primarily based on the acute pain model. This philosophy evolved from investigations and advocacy supporting comparative local anesthetic blocks as a substitute for placebo controls. The underlying principle is that patients with genuine pain should obtain short-term relief with a short-acting local anesthetic and longer-lasting relief with a long-acting local anesthetic, a paradigm supported by double-blind, randomized controlled studies demonstrating that bupivacaine has a significantly longer duration of action than lidocaine.

However, this model does not adequately account for the differences between acute and chronic pain, particularly because chronic pain represents a complex biopsychosocial condition. A paradigm shift has been described by Manchikanti et al (2,23), demonstrating that local anesthetics may produce different and frequently prolonged effects in chronic pain compared with acute pain. This phenomenon has been well established in the literature involving epidural steroids, as well as in other experimental and clinical studies.

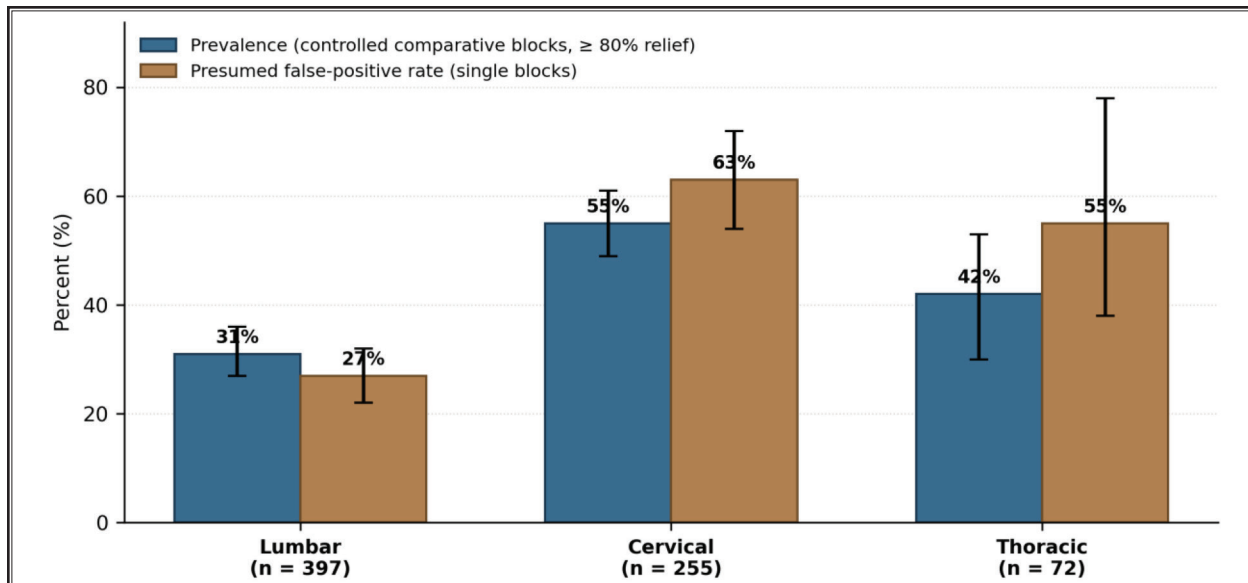


Fig. 2. Prevalence of facet joint pain established by controlled comparative diagnostic blocks, and presumed false-positive rates of single blocks, by spinal region. To preserve methodologic comparability across regions, all values are drawn from a single prospective series of 500 consecutive patients with chronic spinal pain evaluated with controlled comparative local anesthetic blocks using an 80% relief criterion. Error bars denote 95% confidence intervals. Estimates from other high-quality series differ; across the wider literature, lumbar prevalence has ranged from 15% to 61%, cervical from 36% to 67%, and thoracic from 34% to 48%. The high false-positive rates are the principal reason a single positive block is insufficient to establish the diagnosis in any region.

	Cervical	Thoracic	Lumbar
Radiofrequency ablation	II / moderate	III / weak to moderate	II / moderate
Therapeutic facet joint nerve blocks	II / moderate	II / moderate	II / moderate
Therapeutic intraarticular injections	III (short term), V (long term) / weak	III / weak to moderate	IV / weak

Fig. 3. Level of evidence and strength of recommendation for each therapeutic facet joint intervention by spinal region. Darker cells denote stronger evidence. Therapeutic facet joint nerve blocks are the only intervention carrying Level II evidence with a moderate strength of recommendation in all three spinal regions.

In fact, Manchikanti et al demonstrated in 2 studies involving the lumbar and cervical spine that lidocaine produced greater than 80% pain relief for 6 days, with total relief lasting 31 days, whereas bupivacaine pro-

duced greater than 80% pain relief for 12 days, with total relief lasting 55 days.

As our understanding of chronic pain and the effects of local anesthetics continues to evolve, it may be

appropriate to consider the prolonged relief experienced by these patients and wait until the pain returns before proceeding to the next diagnostic or therapeutic step, rather than assuming that the response must correspond strictly to the expected pharmacologic duration of the local anesthetic and proceeding directly to radio-frequency neurotomy. Finally, discordance between the expected pharmacologic duration of local anesthetics and the observed duration of pain relief in chronic pain continues to warrant careful consideration.

Timing of Initiation of Interventional Approaches

The panel recommends a minimum of 3 months from onset and documented failure of conservative management, including medical therapy, structured exercise, and physical therapy, before interventional diagnosis is undertaken.

Recommendation 9. Timing of interventional diagnosis

The level of evidence is II supporting the application of interventional diagnostic approaches during the chronic phase of pain after 3 months from onset, following failure of conservative modalities including medical management, structured exercise programs, and physical therapy, with noninvasive diagnostic assessment leading to diagnostic facet joint nerve blocks, with strong strength of recommendation.

Level of evidence: II

Strength of recommendation: Strong

Psychological Factors

Combined depression, anxiety, and somatization disorder alter the interpretation of a diagnostic block. The panel found Level III evidence that psychological comorbidity influences the diagnosis and assigned a moderate strength of recommendation to the exercise of caution in this population. The recommendation is not an exclusion. It is a statement that a positive block in a patient with a high psychological burden carries a lower probability of durable benefit and should be interpreted accordingly.

Recommendation 10. Influence of psychological factors

The level of evidence is III for the influence of psychological factors affecting the diagnosis, with moderate strength of recommendation to exercise caution in patients with combined depression, anxiety, and somatization disorder.

Level of evidence: III

Strength of recommendation: Moderate

Opioids, benzodiazepines, and sedation during diagnostic blockade

The distinction the panel draws between opioids and benzodiazepines during diagnostic blockade is one of the more clinically actionable elements of the guideline. Intraoperative opioid administration exerts an independent analgesic effect that can convert a negative block into an apparent positive, and Level II evidence supports this concern. The recommendation to avoid opioids is graded strong. Benzodiazepines, by contrast, have been shown not to affect the validity of diagnostic facet joint nerve blocks, and Level II evidence supports their use in low doses for mild sedation, with a moderate strength of recommendation. Mild sedation may be required for patient tolerance, and Level III evidence with a moderate strength of recommendation supports it.

The panel is explicit that this evidence does not extend to monitored anesthesia care (MAC). The guideline states that there is no literature supporting the use of MAC with separate anesthesia personnel for these procedures, that it is neither indicated nor beneficial in any setting (80), and that although every LCD and medical policy states that sedation is not necessary.

Recommendation 11. Avoiding opioids during diagnostic blocks

The level of evidence is II indicating that intraoperative opioids may affect the diagnostic validity of facet joint nerve blocks, with strong strength of recommendation to avoid opioids.

Level of evidence: II

Strength of recommendation: Strong

Recommendation 12. Benzodiazepines during diagnostic blocks

The level of evidence is II demonstrating that benzodiazepines do not affect the validity of diagnostic facet joint nerve blocks, with moderate strength of recommendation that they may be utilized in low doses for mild sedation.

Level of evidence: II

Strength of recommendation: Moderate

Recommendation 13. Mild sedation during diagnostic interventions

The level of evidence is III indicating that mild sedation may be required and utilized during facet joint interventions, with moderate strength of recommendation for providing sedation during therapeutic interventions.

Level of evidence: III

Strength of recommendation: Moderate

Modifiers of Prevalence and False-Positive Rate

Recommendation 14 consolidates the epidemiologic modifiers into a single directive. Prevalence and false-positive rates are higher where multiple spinal regions are involved; prevalence is lower in post-surgery syndrome; and prevalence is higher in older patients. The evidence is Level III and the recommendation moderate. Its practical content is that the same positive block means different things in different patients, and that the physician should calibrate both the decisions to proceed and the expectation communicated to the patient accordingly.

Recommendation 14. Modifiers of prevalence and false-positive rates

The level of evidence is III indicating that the prevalence of facet joint pain and false-positive results may be higher in patients with involvement of multiple regions, that the prevalence of facet joint pain is lower in post-surgery syndrome, and that older patients have a higher prevalence of facet joint pain, with moderate strength of recommendation to consider these factors when establishing diagnosis and therapy.

Level of evidence: III

Strength of recommendation: Moderate

Volume of injectate

Although not issued as a separately numbered recommendation, the guideline addresses injectate volume as a determinant of diagnostic specificity (23), and the point has direct procedural consequences. Volumes of less than 0.5 mL per level are recommended for diagnostic blocks. A cadaveric study of 6 cervical spines demonstrated that 0.5 mL injections during cervical medial branch blocks contacted numerous unintended targets, reducing specificity, whereas 0.25 mL reliably blocked the medial branches without extensive extravasation (81). A clinical study of injectate volume in the cervical spine produced a paradoxical result, with a facet joint pain prevalence of 55% at low volume against 25% at high volume (82), illustrating that volume effects interact with the relief threshold and the population studied. The operational guidance remains that the smallest volume compatible with reliable target contact should be used.

Therapeutic Facet Joint Interventions (Recommendations 15 to 17)

Three therapeutic interventions were evaluated: RFA, therapeutic facet joint nerve blocks, and

therapeutic intraarticular injections. The evidence base comprises 13 systematic reviews and 17 randomized controlled trials for RFA, 11 systematic reviews and 14 randomized trials for intraarticular injections, and 5 systematic reviews and 10 randomized trials for facet joint nerve blocks (1,27-29). Under IPM-QRB appraisal, 10 of 17 radiofrequency trials, 12 of 14 intraarticular trials, and 9 of 10 nerve block trials were high quality. Under GRADE appraisal the picture is markedly less favorable, with only 2 of 17 (12%) radiofrequency trials, none of the 14 intraarticular trials (0%), and 3 of 10 (30%) nerve block trials rated high quality. This divergence between instrument-based methodologic quality and GRADE certainty, which incorporates indirectness, imprecision, and inconsistency across the body of evidence rather than the internal validity of individual trials, explains why recommendations are moderate rather than strong despite an apparently substantial randomized literature. Table 4 summarizes the evidence base and the resulting gradings.

Radiofrequency ablation

In the cervical spine, the evidence is Level II for long-term effectiveness. A systematic review of fluoroscopically guided cervical medial branch radiofrequency neurotomy reported that the majority of patients were pain free at 6 months and that more than one-third remained pain free at one year, with a number needed to treat for complete relief at 6 months of 2 (83). A separate systematic review and meta-analysis of radiofrequency neurotomy in chronic neck pain reached a concordant conclusion (84). Two studies totaling 106 patients reported negative short-term but more promising long-term results; one of these was a randomized trial downgraded under GRADE for low clinical applicability (85,86). A second systematic review stratified outcomes by selection criteria and found the degree of relief to be greatest in patients selected by triple placebo-controlled or dual comparative blocks with 100% relief. For placebo-controlled block selection, complete relief at 6 months was achieved in 58% of patients (95% CI, 30% to 86%), with a pooled success rate of 52% (95% CI, 40% to 64%). For comparative blocks the pooled success rate was 61% (95% CI, 52% to 72%). Where a 75% relief criterion was applied to comparative blocks, pooled results across 234 patients demonstrated complete relief in 31% (95% CI, 25% to 37%), 80% relief in 44% (95% CI, 37% to 51%), and greater than 50% relief in 59% (95% CI, 52% to 66%). These figures make explicit the dependence of reported

Table 4. Summary of the evidence for therapeutic spinal facet joint interventions.

	Radiofrequency ablation	Intraarticular injections	Facet joint nerve blocks
Systematic reviews	13	11	5
Randomized controlled trials (total)	17	14	10
High quality (IPM-QRB)	10 / 17 (59%)	12 / 14 (86%)	9 / 10 (90%)
Moderate quality (IPM-QRB)	7 / 17	2 / 14	1 / 10
Low quality (IPM-QRB)	0 / 17	0 / 14	0 / 10
High quality (GRADE)	2 / 17 (12%)	0 / 14 (0%)	3 / 10 (30%)
Moderate quality (GRADE)	6 / 17	4 / 14	6 / 10
Low quality (GRADE)	9 / 17	10 / 14	1 / 10
Cervical spine: level / strength	II / moderate	III / weak	II / moderate
Thoracic spine: level / strength	III / weak to moderate	III / weak to moderate	II / moderate
Lumbar spine: level / strength	II / moderate	IV / weak	II / moderate
Number of treatments per year	Moderate	Moderate	Moderate
Cost per quality-adjusted life year	\$5,364 – \$5,446	\$5,446	\$3,572 – \$4,994

GRADE = Grading of Recommendations Assessment, Development and Evaluation; IPM-QRB = Interventional Pain Management Techniques – Quality Appraisal of Reliability and Risk of Bias.

radiofrequency success on the definition of success and on the rigor of prior selection (87). In a meta-analysis of 33 studies comparing RFA with corticosteroid injections for spinal facet and sacroiliac joint pain, greater pain relief was demonstrated with ablation at 3 and 6 months, with no significant difference at 12 months (88).

In the lumbar spine, the evidence is also Level II. A systematic review and meta-analysis of 12 randomized trials performed both dual-arm and single-arm analyses (89). In dual-arm analysis against sham at 6 months or less, RFA reduced pain scores by 1.98 points (95% CI, –0.5 to 4.47), a result that did not reach statistical significance ($P = 0.12$). Single-arm cumulative analysis produced far more precise estimates: at 6 months, pain visual analogue scores fell by 3.43 points (95% CI, 2.66 to 4.19; $P < 0.00001$), and at 12 months by 3.68 points (95% CI, 2.34 to 5.02; $P < 0.00001$). Of 4 sham-controlled trials, 3 demonstrated positive short-term results and 2 demonstrated positive results at both short- and long-term follow-up (90-93). The largest, pragmatic trial reported negative findings, which used a perpendicular technique with single-block selection at a 50% relief threshold, is a principal source of the discordance in this literature (94). Functional status assessed by Oswestry Disability Index (ODI) improved significantly at both 6 and 12 months in single-arm analysis. Discordant systematic reviews exist and are acknowledged, including analyses reporting inconclusive effectiveness based on high variability in selection criteria and outcome definition (95-97).

In the thoracic spine, the evidence is Level III. One randomized trial with 20 patients in the treatment arm and 5 observational studies were available. The panel attributed the lower grading to the paucity of randomized data, the small sample sizes of the observational studies, and significant heterogeneity in inclusion criteria, end-point definitions, and reported effectiveness (98).

Recommendation 15. Clinical effectiveness of radiofrequency ablation

The level of evidence is II with moderate strength of recommendation for the clinical effectiveness of cervical RFA. The level of evidence is III with weak to moderate strength of recommendation for the clinical effectiveness of thoracic RFA. The level of evidence is II with moderate strength of recommendation for the clinical effectiveness of lumbar RFA.

Level of evidence: Cervical II; Thoracic III; Lumbar II
Strength of recommendation: Cervical moderate; Thoracic weak to moderate; Lumbar moderate

Therapeutic intraarticular injections

Intraarticular injections carry the weakest recommendations in the therapeutic domain. In the cervical spine the evidence is Level III for short-term improvement and Level V for long-term improvement, with a weak strength of recommendation. In the thoracic spine the evidence is Level III with a weak to moderate recommendation. In the lumbar spine the evidence is Level IV with a weak recommendation. Under GRADE appraisal, none of the 14 randomized trials of

intraarticular injection was rated high quality, the only intervention domain of which is true (1,28).

The role of corticosteroids is central to this grading. The guideline notes that the effectiveness of steroids in facet joint interventions has been shown to be minimal and remains controversial, that steroids are not extensively used in facet joint interventions other than in very small doses, and that current consensus literature does not support their routine use (99). Multisociety consensus recommendations issued in 2026 concluded that evidence of an inflammatory contribution to facet pain, whether from acute injury or from a positive SPECT study, identifies the subgroup most likely to benefit from intraarticular corticosteroid injection (30). That framing is compatible with the ASIPP position: intraarticular injection is not a general-purpose therapy for facet joint pain, but retains a defined place in selected patients, in patients in whom medial branch approaches are anatomically precluded, and in patients with implanted devices in whom ablation is contraindicated.

Recommendation 16. Clinical effectiveness of therapeutic intraarticular injections

The level of evidence is III for short-term improvement and V for long-term improvement, with weak strength of recommendation for the clinical effectiveness of cervical intraarticular facet joint injections. The level of evidence is III with weak to moderate strength of recommendation for the clinical effectiveness of thoracic intraarticular facet joint injections. The level of evidence is IV with weak strength of recommendation for the clinical effectiveness of lumbar facet joint intraarticular injections.

Level of evidence: *Cervical III (short term), V (long term); Thoracic III; Lumbar IV*

Strength of recommendation: *Cervical weak; Thoracic weak to moderate; Lumbar weak*

Therapeutic facet joint nerve blocks

Therapeutic facet joint nerve blocks are the only intervention to receive Level II evidence with a moderate strength of recommendation in all three spinal regions. This uniformity is notable given that thoracic RFA attracts only Level III evidence. The supporting data include comparative evaluations of clinical outcomes and cost utility against RFA. In a study of lumbar radiofrequency vs. therapeutic facet joint nerve blocks, comparison of 326 patients, 99 receiving therapeutic facet joint nerve blocks with L5 dorsal ramus block and 227 receiving RFA, no adverse effects were reported in either group. Patients

experienced significant improvement in both groups from baseline to 12 months with significant pain relief ($\geq 50\%$), in 100%, 99%, and 79% of the patients in the facet joint nerve block group, whereas, it was 100%, 74%, and 65% in the radiofrequency neurotomy group at the 3-, 6-, and 12-month follow-up, with a significant difference at 6 months. (100). In a cervical comparative study of 295 patients, 132 receiving medial branch blocks and 163 receiving RFA, significant pain relief was observed in 100%, 94%, and 81% of the medial branch block group at 3, 6, and 12 months, against 100%, 69%, and 64% of the radiofrequency group, with significant differences at 6 and 12 months favoring the blocks. The average duration of relief was 13 to 14 weeks for each cervical medial branch block and 20 to 25 weeks for RFA. Cost per quality-adjusted life year was \$4,994 for cervical medial branch blocks against \$5,364 for cervical RFA (101).

These findings support a position that is somewhat at variance with prevailing coverage policy, under which therapeutic facet joint injections are not covered unless documentation establishes why RFA cannot be performed. The guideline data indicate that therapeutic nerve blocks produce outcomes at least equivalent to ablation at comparable cost. A 2025 systematic review and meta-analysis directly comparing intraarticular facet joint blocks with medial branch blocks has also been published (102). The practical differences are that each block delivers a shorter duration of relief than ablation and therefore requires more frequent repetition, while ablation is twice as expensive as nerve blocks, it also carries the risks of neuritis, deafferentation pain, and multifidus denervation. The panel recommends use of therapeutic facet joint nerve blocks based on medical necessity with implant and other indications; it establishes both as evidence-supported options.

Recommendation 17. Clinical effectiveness of therapeutic facet joint nerve blocks

The level of evidence is II with moderate strength of recommendation for the clinical effectiveness of therapeutic cervical facet joint nerve blocks. The level of evidence is II with moderate strength of recommendation for the clinical effectiveness of thoracic therapeutic facet joint nerve blocks. The level of evidence is II with moderate strength of recommendation for the clinical effectiveness of therapeutic lumbar facet joint nerve blocks.

Level of evidence: *Cervical II; Thoracic II; Lumbar II*

Strength of recommendation: *Moderate in all three regions*

Special Considerations (Recommendations 18 to 27)

Repeat facet joint interventions

Repeat intervention is the special consideration with the strongest evidentiary support, at Level II with a moderate to strong strength of recommendation. A systematic review reported that repeat RFA was successful in 88% of cervical and 59% of lumbar patients, with success defined as at least 50% pain reduction sustained for at least 3 months, and with duration of success comparable to the initial procedure (103). Multiple observational series have found no significant difference in pain reduction or duration of benefit between first, second, and third ablations (104-106). A prospective study of 104 patients drawn from a cohort of 596 undergoing ablation over 5 years found significant improvement in pain intensity, pain frequency, and disability after the initial, second, and third procedures, with no statistically significant difference in duration of relief, and a mean duration of approximately 10 months (107). A retrospective evaluation of repeat lumbar ablation reported a mean duration of relief of 10.5 months with repeat procedures successful in 85% of patients in whom the initial ablation had succeeded (104).

The corollary is equally important and is stated explicitly. Where the first denervation was unsuccessful, the success rate of repetition falls to 38% in one review and to 33% in a series in which initial success lasted less than 90 days, leading its authors to conclude that if the first denervation fails, the repeat success rate is essentially zero (103,108). Repetition is therefore indicated to restore relief that has been obtained and lost, not to salvage relief that was never achieved. Longer-term audits temper the overall picture. In a 10-year prospective clinical audit of 209 patients undergoing ablation, 174 completed the study; 55 of these (31.6%) experienced no benefit, while 119 (68.4%) obtained good to excellent relief lasting 6 to 24 months (109). In a prospective outcome study of 44 consecutive patients involving 101 facet joints diagnosed by dual blocks, significant improvement in pain, analgesic requirement, satisfaction, disability, and direct cost was reported, but benefit peaked between 3 and 6 months and diminished thereafter (110).

Two safety concerns were examined. Neuroma formation following lumbar medial branch ablation has been described in a single case report (111). Multifidus denervation has attracted more attention. A narrative review identified 5 cohort studies and one case series;

2 studies confirmed decreased multifidus function after lumbar ablation, and of 4 studies examining structural change, 2 reported reduced cross-sectional area or fatty infiltration, one found no measurable difference, and one showed apparent muscle enlargement (112,113). Diffuse multifidus atrophy was demonstrated in 5 patients 17 to 26 months after unilateral ablation, although 3 blinded radiologists correctly identified the side and level of the lesion in only one patient and no clinical consequence was established (114). A separate series of 27 patients found no significant difference in multifidus area or adverse facet joint change, though increased intervertebral disc degeneration was observed (115,116). The panel concluded that the evidence for clinically meaningful multifidus injury is inconsistent and heterogeneous and does not currently constrain the recommendation.

The operational conclusion is that patients who achieve at least 50% pain relief for a minimum of 5 to 6 months following ablation and who subsequently develop recurrent pain may undergo repeat ablation up to twice yearly, without a limit on the total number of procedures over a lifetime. The panel notes that this is a more permissive position than the National Institute for Health and Care Excellence (NICE) guidance, which advises caution pending additional long-term data (117), and is broadly consistent with international consensus guidelines recommending repetition after at least 3 months, and preferably 6 months, of successful relief (31,32).

Recommendation 18. Repeat facet joint interventions

The level of evidence is II, with moderate to strong strength of recommendation for the safety and effectiveness of repeat facet joint interventions, including RFA, with outcomes comparable to the initial procedures.

Level of evidence: II

Strength of recommendation: Moderate to strong

Temperature, duration of lesioning, and lesion size

This recommendation carries Level II evidence with a strong strength of recommendation and is the most technically prescriptive statement in the guideline. Three comparative studies informed it. A retrospective evaluation found that patients treated at 90°C had a 3.1 times greater likelihood of at least 50% relief than those treated at 80°C ($P = 0.0004$), and a 2.8

times greater likelihood of at least 75% improvement ($P = 0.002$) (119). A 2025 randomized double-blind study comparing 80°C and 90°C reported significant pain reduction in both groups but a median time to repeat ablation of 112 days (range 49 to 252) at 80°C against 217 days (range 198 to 348) at 90°C ($P < 0.04$), with the caveat of substantial loss to follow-up in both arms (119). A randomized trial comparing 90°C for 50 seconds, 85°C for 60 seconds, and 70°C for 90 seconds found no significant difference in pain reduction at 6 months, attributed to delivery of comparable total energy across the three protocols (120).

Existing guidance differs. Medicare LCDs recommend 80°C without specifying duration (34). Spine Intervention Society (SIS) practice guidelines recommend 80°C to 85°C for 60 to 90 seconds with 2 to 3 lesions depending on cannula diameter and active tip length (121). The British Pain Society (BPS) technical guideline recommends an 18-gauge cannula with a 10 mm curved active tip at 80°C for 120 seconds with 2 lesions per nerve (122). The American Society of Pain and Neuroscience (ASPN) recommends 60°C to 80°C for 60 to 90 seconds in both cervical and lumbar spine (123). The German national guideline recommends a cannula of at least 18 gauge with a 10 mm active tip and multiple lesions per medial branch (33). The ASIPP recommendation specifies cannula gauge and active tip length by region rather than prescribing a single temperature-duration pair, reflecting the finding that total delivered energy, rather than temperature alone, determines lesion adequacy. Table 5 consolidates the technical parameters.

Recommendation 19. Temperature, duration of lesioning, and lesion size

The level of evidence is II with strong strength of recommendation regarding the impact of temperature, lesion duration, and lesion size when procedures are performed using an 18-gauge cannula in the lumbar spine and a 20-gauge cannula in the cervical and thoracic spine, with an active tip of 10 mm in the lumbar spine and 5 or 10 mm in the cervical and thoracic spine.

Level of evidence: II

Strength of recommendation: Strong

Type of electrode and needle

Two observational studies in the lumbar spine compared conventional electrodes with cooled radio-frequency or with an electrode carrying three active

elements at the tip and found no significant difference in pain scores or ODI outcomes (124,125). A systematic review with meta-analysis likewise found no significant difference in pain reduction between conventional and cooled RFA (126). More recent multitined designs have been evaluated in the cervical spine. One retrospective cohort reported successful outcome in 65.4% of patients at 3 months, with recurrence in 15 of 34 responders after a mean of 8.8 ± 2.5 months (127). A cross-sectional cohort of 66 patients with mean follow-up of 16.3 ± 7 months reported that 77.3% achieved a reduction of more than 2 points on the numeric rating scale (NRS), 63.6% reported a Patient Global Impression of Change (PGIC) above 6, opioid use fell by 15.2%, and 51.5% achieved more than 50% reduction in NRS scores (128). The panel concluded that the responder proportions are not superior to conventional ablation, though the duration of relief may be longer with the three-tined electrode (129), and issued no specific recommendation.

Recommendation 20. Type of electrodes and needles

The level of evidence is IV with no specific recommendation regarding the use of a particular type of electrode or needle for RFA.

Level of evidence: IV

Strength of recommendation: No specific recommendation

Position of the electrode

The parallel technique, in which curved electrodes are positioned tangentially so that contact with the medial branch occurs along the long axis of the active tip, has been advocated on anatomic grounds and is favored by the consensus guidelines for both cervical and lumbar spine, by the German national guideline, and by the ASPN for the lumbar spine (31-33,123). Empirical evidence is less decisive. A systematic review supporting the parallel technique acknowledged that the studies employing it also applied more rigorous patient selection, introducing confounding (130). Among randomized trials using parallel placement, two reported positive outcomes and one reported a lack of efficacy even at 3 months (90,91,131); a randomized trial using perpendicular placement reported positive efficacy (92). A randomized active-controlled trial directly comparing the two techniques in 41 patients per arm found positive outcomes in both groups at 6 months, with perpendicular placement marginally superior (132). A

Table 5. Radiofrequency ablation technical parameters: ASIPP 2026 recommendations and comparison with other guidance.

Parameter	ASIPP 2026	Other guidance
Cannula gauge, lumbar	18-gauge	British Pain Society: 18-gauge; German national guideline: $\geq$ 18-gauge
Cannula gauge, cervical and thoracic	20-gauge	Not separately specified in most guidance
Active tip length, lumbar	10 mm	British Pain Society: 10 mm curved; German national guideline: 10 mm
Active tip length, cervical and thoracic	5 or 10 mm	Not separately specified in most guidance
Temperature	$\geq 80^{\circ}\text{C}$	Medicare LCD: 80°C ; Spine Intervention Society: $80\text{--}85^{\circ}\text{C}$; British Pain Society: 80°C ; ASPN: $60\text{--}80^{\circ}\text{C}$
Lesion duration	Not prescribed as a single value; total delivered energy is the operative variable	Spine Intervention Society: 60–90 s; British Pain Society: 120 s; ASPN: 60–90 s
Number of lesions per nerve	No specific recommendation	Spine Intervention Society: 2–3; British Pain Society: 2; German national guideline: multiple
Electrode type	No specific recommendation (Level IV)	Conventional monopolar predominates; cooled and multitined designs not demonstrated superior
Electrode position	Parallel or perpendicular (Level IV, weak)	Consensus guidelines and ASPN favor parallel in the lumbar spine
Stimulation testing	Motor and/or sensory testing before ablation (Level II, strong)	Spine Intervention Society: not recommended, anatomic localization preferred; consensus guidelines: both modalities

ASPN = American Society of Pain and Neuroscience; LCD = Local Coverage Determination.

comparative evaluation found no significant difference in pain reduction but longer duration of relief with the parallel technique (133). Two large observational series using a perpendicular approach with a single lesion reported 50% or greater relief in 69% of cervical patients at 6 months and 64% at 12 months, and 74% of lumbar patients at 6 months and 65% at 12 months, results comparable to those achieved with parallel technique (100,101). The panel assigned Level IV evidence with a weak strength of recommendation and did not endorse either approach.

Recommendation 21. Position of the electrode

The level of evidence is IV with weak strength of recommendation for placement of the electrode either parallel or perpendicular to the nerve.

Level of evidence: IV

Strength of recommendation: Weak

Stimulation parameters

The evidence relating stimulation testing to outcome is negative, yet the recommendation is strong. A prospective study of 15 patients found no correlation between ablation success and either impedance values or observed muscle twitching (134). A prospective study of 61 patients found no significant relationship between mean sensory stimulation threshold and outcome (135). A retrospective study of 68 patients found a longer duration of benefit in

patients with muscle twitching, but the difference reached significance ($P = 0.03$) only when paravertebral twitching occurred within 1.6 times the voltage at which sensory provocation was achieved (136). Guidance is divided: the SIS recommends anatomic localization by multiplanar fluoroscopy rather than stimulation testing and warns against motor stimulation without adequate imaging (121); the consensus guidelines recommend both sensory and motor testing; the BPS recommends sensory but not motor testing (31,32,122).

The panel nonetheless assigned Level II evidence and a strong strength of recommendation for performing either motor or sensory testing before ablation. The rationale is that stimulation testing functions primarily as a safety check against inadvertent lesioning of the ventral ramus or spinal nerve, a complication that has produced motor deficit, sensory loss, and deafferentation pain, rather than as a predictor of effectiveness. The recommendation should be read in that light: it is not a claim that stimulation improves outcome, but that it reduces the risk of neurologic injury.

Recommendation 22. Stimulation parameters

The level of evidence is II, or moderate, with strong strength of recommendation for performing either motor or sensory stimulation testing prior to RFA.

Level of evidence: II

Strength of recommendation: Strong

Radiofrequency ablation in patients with metallic implants

Three observational studies informed this recommendation. A retrospective review of 507 patients undergoing ablation identified 36 with metallic posterior spinal instrumentation, in whom 56 ablations were performed at instrumented levels, 44 of them lumbar, with no complications (137). A case series concluded that ablation can be performed safely in close proximity to hardware, noting that heating of the hardware may occur and could theoretically produce tissue injury or reduce heat delivery to the target nerve, but without apparent clinical significance (138). A retrospective series of 40 patients likewise reported no complications (139). Against these, a study in which a probe was placed on fusion hardware to monitor temperature during 10 lumbar medial branch ablations in 6 patients found that hardware temperature rose during 6 of the 10 procedures, and in 2 rose rapidly to 42°C, prompting the operator to abandon the level. Its authors hypothesized that heat transfer to hardware may increase the risk of patient injury (140).

Coverage policy is more restrictive than the evidence. Medicare guidance states that ablation should not be performed in patients who have undergone anterior lumbar interbody fusion, and other policies bar ablation at the level of fusion (34). Because of these technical and policy constraints, facet joint nerve blocks may be considered where medical policy permits, though no study has compared their effectiveness against ablation in this population. The panel assigned Level IV evidence with a weak strength of recommendation, and emphasized careful preoperative review of axial imaging, multiplanar fluoroscopy, and deliberate trajectory planning to avoid direct electrode contact with metal (141).

Recommendation 23. Radiofrequency ablation in patients with metallic implants

The level of evidence is IV with weak strength of recommendation for performing RFA in patients with metallic implants.

Level of evidence: IV

Strength of recommendation: Weak

Radiofrequency ablation in patients with cardiac implantable electronic devices

Cardiac implantable electronic devices comprise pacemakers, implantable cardioverter-defibrillators, and cardiac resynchronization therapy devices. Elec-

tromagnetic interference generated during ablation may be sensed by these devices and trigger unintended responses. In a pacemaker, sensed current may inhibit output in order to avoid dyssynchrony and the R-on-T phenomenon; in a pacemaker-dependent patient this may produce asystole. In a defibrillator, sensed current may be misinterpreted as a non-perfusing tachyarrhythmia and trigger cardioversion. Less common consequences include device reset, pulse generator damage, and lead-tissue interface injury. Manufacturers recommend a minimum separation of 15 centimeters between sources of electromagnetic interference and the device, although recommendations vary by model (142). Anatomically, interference arising below the L3-L4 or umbilical level is unlikely to be significant (based on location of leads or battery), so procedures performed above the umbilicus, including cervical and thoracic interventions, are regarded as higher risk.

A physician survey of approximately 200 clinicians documented substantial variability in the management of these devices before, during, and after ablation, and emphasized the absence of guidance specific to percutaneous spinal radiofrequency procedures (143). Subsequent society guidance provided a management algorithm and cautioned that indiscriminate magnet application is not recommended, with only a minority of patients requiring magnet use (142,144). The panel assigned Level III evidence with a moderate strength of recommendation for the safety and effectiveness of ablation in patients with pacemakers when appropriate preparation and precautions are observed, including bipolar technique and maintenance of 15 centimeters of separation.

The second element of Recommendation 24 is the more consequential. In patients with cardiac pacemakers who have demonstrated positive dual therapeutic facet joint nerve blocks, the panel assigned Level II evidence with a moderate to strong strength of recommendation for treating with therapeutic facet joint nerve blocks rather than ablation. This is the highest grading assigned to any device-related statement, and it reflects the fact that the evidence for therapeutic nerve blocks is Level II in its own right, whereas the evidence for safe ablation in this population is only Level III.

Recommendation 24. Radiofrequency ablation in patients with cardiac implantable devices

(a) The level of evidence is III with moderate strength of recommendation for the safety and effectiveness

of RFA in patients with cardiac pacemakers when appropriate preparation and precautions are utilized, including bipolar RFA and maintenance of distance of 15 cm or 6 inches. (b) The level of evidence is II with moderate to strong strength of recommendation in patients with cardiac pacemakers who have demonstrated positive dual therapeutic facet joint nerve blocks instead of RFA.

Level of evidence: (a) III; (b) II

Strength of recommendation: (a) Moderate; (b) Moderate to strong

Stimulators and intrathecal infusion systems

The same physical principles apply to deep brain stimulators, spinal cord stimulators, peripheral nerve stimulators, and intrathecal infusion systems, but the evidence base is thinner and the recommendations correspondingly weaker. The panel assigned Level III to V evidence with a weak strength of recommendation for performing ablation in patients with implantable stimulators and intrathecal infusion systems while using bipolar technique and maintaining 15 centimeters of separation.

For devices implanted in the cervical region, including hypoglossal nerve stimulators, vagus nerve stimulators, and cervical leads, the evidence falls to Level V. The panel notes candidly that the 15-centimetre separation on which the recommendation depends may not always be achievable in this anatomic context. Recommendation 27 follows logically: where separation cannot be assured, therapeutic facet joint nerve blocks should be substituted for ablation, particularly in the cervical and thoracic spine and potentially in the lumbar spine. This statement carries Level II evidence with a moderate to strong strength of recommendation, again because the substituted intervention itself is well supported.

Recommendation 25. RFA in patients with implantable stimulators and intrathecal infusion systems

The level of evidence is III to V with weak strength of recommendation for performing RFA in patients with implantable stimulators and intrathecal infusion systems while utilizing appropriate safety precautions, including bipolar RFA and maintenance of a distance of 15 cm or 6 inches.

Level of evidence: III to V

Strength of recommendation: Weak

Recommendation 26. RFA in patients with cervically implanted stimulators and pumps

The level of evidence is V with weak strength of recommendation for performing RFA in patients with stimulators and pumps implanted in the cervical spine, including hypoglossal nerve stimulators, vagus nerve stimulators, and cervical leads, while utilizing appropriate safety precautions, including bipolar RFA and maintenance of a distance of 15 cm, although this distance may not always be feasible.

Level of evidence: V

Strength of recommendation: Weak

Recommendation 27. Therapeutic facet joint nerve blocks as a substitute for RFA in patients with implants

The level of evidence is II, including bipolar RFA and maintenance of distance of 15 cm or 6 inches, with moderate to strong recommendation for performing therapeutic facet joint nerve blocks as a substitute for RFA in the management of spinal facet joint pain, particularly in the cervical and thoracic spine, and potentially in the lumbar spine.

Level of evidence: II

Strength of recommendation: Moderate to strong

Antithrombotic Therapy (Recommendation 28)

All facet joint interventions, encompassing intraarticular injections, medial branch and L5 dorsal ramus nerve blocks, and radiofrequency neurotomy, are classified within the ASIPP antithrombotic framework as low-risk procedures. They appear in the low-risk column alongside trigger point and intramuscular injections, peripheral nerve blocks, sacroiliac joint injections, intraarticular injections of the extremities, caudal epidural injections, and ganglion impar blocks, and are distinguished from moderate-risk procedures such as lumbar interlaminar epidural injections at L5-S1 and from high-risk procedures such as cervical and thoracic interlaminar epidurals, discography, dorsal column stimulator implantation, intrathecal pump implantation, and vertebral augmentation (145).

The practical consequence is that for facet joint interventions, low-dose and high-dose aspirin, clopidogrel, prasugrel, ticagrelor, dipyridamole, and cilostazol may all be continued; warfarin may be continued or interrupted for 1 to 2 days targeting an INR of 3.0 or less; and direct oral anticoagulants may be continued or interrupted for a single day. Intravenous heparin is

discontinued for 4 hours, subcutaneous heparin for 6 hours, and low molecular weight heparin for 24 hours. Therapy is restarted 12 to 24 hours after the procedure (145-147). Table 6 reproduces the relevant portion of the antithrombotic schedule.

The recommendation is nevertheless conditioned on individual clinical judgement. Factors associated with increased bleeding risk include the need for oral anticoagulation in addition to dual antiplatelet therapy, age above 75 years, frailty, hemoglobin below 110 g/L, creatinine clearance below 40 mL/min, body weight below 60 kg, hospitalization for bleeding within the past year, previous stroke or intracranial hemorrhage, and regular use of non-steroidal anti-inflammatories (NSAIDs) or prednisone (148). Thromboembolic risk must be weighed against bleeding risk in every case, and the guideline is explicit that the decision rests with the treating physician in correlation with the patient's medical and social history.

Recommendation 28. Antithrombotic therapy

Facet joint interventions are considered moderate-to low-risk procedures; consequently, antithrombotic therapy may be continued based on the patient's overall clinical status. The level of evidence regarding safety of facet joint interventions, including intraarticular injections, medial branch blocks, and ablation, is III with moderate strength of recommendation that antithrombotic therapy may be continued based on ASIPP antithrombotic guidelines.

Level of evidence: III

Strength of recommendation: Moderate

Sedation (Recommendations 29 and 30)

Sedation is addressed twice, once in the diagnostic context and once in the therapeutic context, because the considerations differ. During diagnostic blockade, sedation is a potential confounder of the test result, and the constraint is on the agent rather than on the depth: benzodiazepines are permissible in low doses, opioids are not. During therapeutic intervention there is no diagnostic result to protect, and the constraint becomes one of necessity and proportionality.

The panel assigned Level III evidence with a moderate strength of recommendation to the use of mild sedation during therapeutic facet joint interventions, and Level III evidence with a moderate strength of recommendation to the use of moderate sedation or MAC where it may be required for RFA. Coverage policy is considerably narrower. LCDs state that moderate or deep sedation, general anesthesia, and MAC are not reasonable and necessary during facet joint injections; that moderate sedation for ablation or cyst rupture will be considered only with documentation of a longstanding and well-documented inability to cooperate, a medical condition prohibiting performance of the procedure, or an inability to remain motionless; and that patient anxiety or preference alone is insufficient justification (34). The guideline endorses the substance of this position, observing that routine MAC with separate anesthesia personnel is not supported by any literature and adds cost without benefit (80).

Table 6. Management of antithrombotic medication for facet joint interventions (low-risk procedures) under the ASIPP framework.

Medication class	Agent	Action before a facet joint intervention	Restart
NSAIDs	COX-1 and COX-2 inhibitors	May continue, or stop 1–10 days (no protective effect)	24 h
Aspirin	Low dose and high dose	Continue, or may stop for 3 days	24 h
Phosphodiesterase inhibitors	Dipyridamole, cilostazol, dipyridamole plus aspirin	May continue	12–24 h
Platelet aggregation inhibitors	Clopidogrel, prasugrel, ticagrelor	May continue	12–24 h
Vitamin K antagonist	Warfarin	May continue, or stop 1–2 days; target INR $\leq$ 3.0	12–24 h
Direct oral anticoagulants	Dabigatran, apixaban, rivaroxaban, edoxaban	May continue, or stop for 1 day	24 h
Heparins	Unfractionated heparin, intravenous	Discontinue for 4 h	24 h
	Unfractionated heparin, subcutaneous	Discontinue for 6 h	24 h
	Low molecular weight heparin	Discontinue for 24 h	24 h
Supplements	Garlic, vitamin E, fish oil	Continue, or may stop for 3 days	24 h

COX = cyclooxygenase; INR = international normalized ratio; NSAIDs = nonsteroidal anti-inflammatory drugs. Adapted from the 2024 ASIPP updated guidelines on perioperative management of antiplatelet and anticoagulant therapy in patients undergoing interventional techniques.

Recommendation 29. Mild sedation during therapeutic interventions

The level of evidence is III indicating that mild sedation may be required and utilized during the performance of facet joint interventions, with moderate strength of recommendation.

Level of evidence: III

Strength of recommendation: Moderate

Recommendation 30. Moderate sedation or monitored anesthesia care for RFA

The level of evidence is III that moderate sedation or MAC may be required for RFA, with moderate strength of recommendation.

Level of evidence: III

Strength of recommendation: Moderate

Cost-Utility

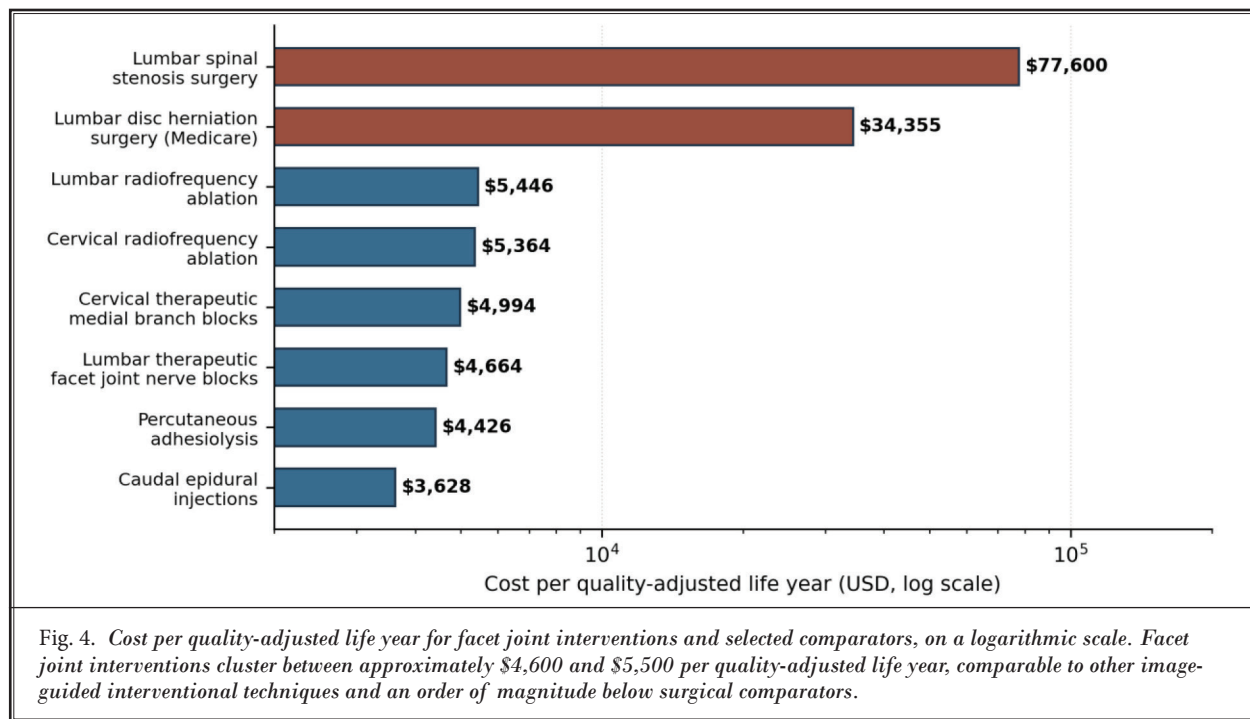
Cost-utility analysis was addressed as Key Question 15. In interventional pain management, ASIPP cost utility calculations are based on approximately 60% direct and 40% indirect expense (149,150), a proportion higher than that used in most published analyses and one that therefore tends to overestimate rather than understate cost. Direct procedural payment data were multiplied by a factor of 1.67 to estimate total direct and indirect costs, following the methodology of the Spine Patient Outcomes Research Trial (SPORT) analyses (151,152).

Cost-utility analysis of cervical therapeutic medial branch blocks based on direct payment data from 120 patients over 2 years demonstrated \$4,261 per quality-adjusted life year (150). Therapeutic lumbar facet joint nerve blocks were cost effective at \$4,432 per quality-adjusted life year (149). In the 2022 comparative evaluations, which restricted inclusion to patients meeting the criterion standard of controlled comparative diagnostic blocks with 80% relief, the average cost per quality-adjusted life year was \$4,664 for lumbar facet joint nerve blocks and \$5,446 for lumbar RFA, and \$4,994 for cervical medial branch blocks against \$5,364 for cervical RFA (100,101).

These figures acquire meaning by comparison. Within interventional pain management, caudal epidural injections were cost effective at \$3,628 per quality-adjusted life year (153) and percutaneous adhesiolysis at \$4,426 (154). Lumbar interlaminar epidural injections demonstrated total costs of \$3,301 per quality-adjusted life year and cervical interlaminar epidural injections \$3,786 (12). Two earlier appraisals of the

wider spine literature are instructive: one found that the one-year cost per QALY gained was below \$100,000 in only 45% of the studies evaluated (155), and another found that greater value was consistently assigned to nonoperative than to surgical treatment (156). Spinal cord stimulation has been cost-effective at CAD \$9,293 per QALY for failed back surgery syndrome and CAD \$11,216 for complex regional pain syndrome (157), and at EUR 5,624 per QALY against conventional medical management in a European analysis (158). Beyond interventional techniques, physical therapy for nonspecific low back pain has demonstrated incremental cost effectiveness of \$4,594 per quality-adjusted life year (159), and early physical therapy for acute low back pain \$32,058 (160). Surgical comparators are an order of magnitude higher: lumbar disc herniation surgery at \$69,403 per quality-adjusted life year in the general population and \$34,355 in the Medicare population (152); spinal stenosis surgery at \$77,600; degenerative spondylolisthesis surgery at \$115,600 (151); posterior cervical fusion at \$20,547 (161). Figure 4 places these values on a common scale.

International analyses reach less uniform conclusions, and the guideline reports them without reconciling them. A Swedish analysis of 331 patients followed for one year found highly significant improvement in health-related quality of life, reductions in drug consumption and specialized health care utilization of 54% and 81% respectively, and a cost per quality-adjusted life year of 221,324 Swedish Krona from a societal perspective, equivalent to approximately \$26,008, and 72,749 Swedish Krona, approximately \$8,548, from a health care perspective, meeting the Swedish National Board of Health and Welfare criteria for a high-priority treatment (162). A Thai analysis concluded that ablation was not cost effective against conservative treatment in that setting, while acknowledging improved health outcomes and recommending inclusion in the national health benefit package (163). An economic evaluation conducted alongside three pragmatic Dutch randomized trials found no difference in costs between groups in the facet joint and combination trials and concluded that radiofrequency denervation added to a standardized exercise program could not be considered cost effective from a societal perspective in that health care system (164). A further analysis reported costs for successful treatment ranging from \$6,286 with no diagnostic blocks, \$17,142 with a single diagnostic block, and \$15,241 with comparative blocks; the guideline observes that this analysis evaluated cost without ad-



equately accounting for outcome and that the absolute figures are far above average United States costs, limiting its interpretability (77).

Side Effects and Adverse Consequences

The safety literature is described by the panel as sparse. Complications are rare and relate predominantly to needle placement and drug administration: bleeding with or without intravascular entry, infection, dural puncture, neural or spinal cord trauma, pneumothorax, radiation exposure, hematoma, neuropathic pain following ablation, steroid-related effects, and sedation-related events (165,166).

The largest single-institution series of intraarticular facet joint steroid injections reviewed approximately 12,000 procedures in 6,066 patients with a mean age of 66.8 years and reported 101 adverse events in 99 patients, an incidence of 0.84% per case and 1.63% per patient. Procedure-related complications occurred in 0.07% and drug-related systemic events in 0.15%; events of uncertain etiology accounted for 0.63%. All 8 procedure-related events were major, comprising 7 cases of infectious spondylitis, one of which progressed to systemic aspergillosis of the spine. One patient died from uncontrolled infection secondary to infective endocarditis and 2 recovered only partially, with neurologic sequelae. The authors concluded that although

the overall incidence is low and major complications rare, infection can occur and may be serious (166).

Intravascular penetration during medial branch blockade has been quantified in several large series. Across 14,312 blocks, the overall incidence was 3.5%, comprising 3.9% in the cervical spine, 3.7% in the lumbar spine, and 0.7% in the thoracic spine (167). Two further series of lumbar blocks reported 6.1% (168,169). In one of the largest prospective evaluations, encompassing 7,500 episodes and 43,000 medial branch blocks performed in sterile operating room settings within ambulatory surgery centers, no major complications occurred. Intravascular penetration was observed in 11.4% of episodes, with 20% in the cervical region, 6% in the thoracic region, and 4% in the lumbar region. Local bleeding occurred in 76.3% of episodes, oozing in approximately 20%, and local hematoma in 1.2%. Profuse bleeding, bruising, soreness, nerve root irritation, and vasovagal reactions each occurred in 1% or fewer episodes (165).

Complications specific to RFA include worsening pain, dysesthesia, and decreased sensation. Inadvertent lesioning of the spinal nerve or ventral ramus has produced motor deficit, sensory loss, and deafferentation pain. Dropped head syndrome has been reported as a rare complication of multilevel bilateral cervical ablation. Bowel and bladder dysfunction, Brown-Séquard

syndrome, and spinal cord infarction have been described (1). Spinal epidural abscess is rare, with an estimated annual incidence in the general population of 0.2 to 2.8 per 10,000 (170,171) and is an unexpected complication of ablation because the epidural space is not intentionally entered; two case reports exist (171,172). Septic arthritis of the facet joint carries a higher associated risk, with epidural abscess present in 56% of patients in one retrospective series (173), and intraarticular injection may pose a distinct risk because of the proximity of the ventral joint capsule to the ligamentum flavum (172,173). Table 7 summarizes the reported frequencies.

Translating the Recommendations into Practice: Coverage Criteria and Documentation

The final substantive section of the guideline converts the graded recommendations into an operational framework aligned with LCDs and commercial medical policy (34,35). Facet joint interventions are considered medically reasonable and necessary only in patients meeting all of four entry criteria: moderate to severe chronic neck or low back pain that is predominantly axial and produces a functional deficit measured on a pain or disability scale; pain present for a minimum

of 3 months with documented failure of noninvasive conservative management as tolerated; absence of untreated radiculopathy or neurogenic claudication, except where radiculopathy is caused by a facet joint synovial cyst; and absence of non-facet pathology on clinical assessment or imaging that could explain the pain, including fracture, tumor, infection, or significant deformity. Pain must be assessed and documented at baseline and after each diagnostic procedure using the same scale, and a disability scale must be obtained at baseline (34).

Diagnostic procedures should be performed with the intention that, if successful, RFA will be the primary treatment at the diagnosed levels. The guideline panel added an explicit qualification to the standard coverage language: in patients with implants, therapeutic intraarticular injections or medial branch blocks may be provided instead. Intraarticular blocks are reasonable as a diagnostic test only where medial branch blocks cannot be performed because of documented anatomic restriction, or where there is an indication to proceed to therapeutic intraarticular injection. A confirmatory second diagnostic procedure requires a consistent positive response of at least 80% relief of index pain to the first and must be performed at least 2 weeks after it.

Therapeutic thresholds differ from diagnostic

Table 7. *Reported side effects and adverse consequences of facet joint interventions.*

Event	Reported frequency	Context
Overall adverse events, intraarticular steroid injection	0.84% per case; 1.63% per patient	≈12,000 procedures in 6,066 patients
Procedure-related major complications	0.07%	Same series; 7 of 8 events were infectious spondylitis
Drug-related systemic adverse events	0.15%	Same series
Intravascular penetration, all medial branch blocks	3.5% overall; cervical 3.9%, lumbar 3.7%, thoracic 0.7%	14,312 blocks
Intravascular penetration, lumbar medial branch blocks	6.1%	Two independent series
Intravascular penetration, per episode	11.4% (cervical 20%, thoracic 6%, lumbar 4%)	7,500 episodes, 43,000 blocks
Local bleeding	76.3% of episodes	Same prospective series; highest in the thoracic region
Oozing	≈20% of encounters	Same series
Local hematoma	1.2%	Same series
Profuse bleeding, bruising, soreness, nerve root irritation, vasovagal reaction	≤ 1% each	Same series
Major complications in a sterile ambulatory surgery center setting	None reported	7,500 episodes
Spinal epidural abscess after RFA	Two published case reports	Epidural space not intentionally entered
Dropped head syndrome	Rare; several case reports	Multilevel bilateral cervical RFA
Post-ablation neuritis, dysesthesia, deafferentation pain	Reported; frequency not quantified	Generally self-limiting; prolonged pain most common

thresholds, and the distinction is a frequent source of error. Diagnosis requires two blocks each yielding at least 80% relief. Continuation of therapeutic blocks requires at least 50% consistent pain relief, or at least 50% consistent improvement in the ability to perform previously painful movements and activities of daily living, for at least 3 months from the prior therapeutic procedure. Repeat ablation requires at least 50% consistent improvement sustained for at least 6 months. Frequency is capped at four diagnostic sessions, four therapeutic block sessions, and two radiofrequency sessions per covered spinal region per rolling 12 months. One to two levels, unilateral or bilateral, are permitted per session per region; three- and four-level procedures are not covered. Interventions are limited to one spinal region per session. Where the interval since the last ablation exceeds 2 years and the source of recurrent pain is in question, diagnostic procedures must be repeated (34). Table 8 consolidates these criteria and

Fig. 5 presents the complete diagnostic and therapeutic algorithm.

Documentation requirements

All spinal interventional techniques are treated as surgical procedures for documentation purposes. The required record comprises history and physical examination; indications and medical necessity; an intraoperative procedural description covering consent, monitoring, sedation, positioning, site preparation, fluoroscopy, drugs used, needle placement, and any complications; postoperative monitoring and ambulation orders; and discharge and disposition (174). The history must document the signs and symptoms warranting the procedure, current medications with dose, route, and frequency, comorbid conditions and prior surgery, and any social circumstances bearing on discharge. Where intravenous sedation or another form of anesthesia is planned, the physical examination must

Table 8. Operational criteria for diagnostic and therapeutic facet joint interventions.

Element	Requirement
Entry criteria (all four required)	Moderate to severe chronic axial neck or low back pain with functional deficit on a validated scale; ≥ 3 months duration with documented failure of conservative management; no untreated radiculopathy or neurogenic claudication (except synovial cyst); no non-facet pathology explaining the pain
Image guidance	Fluoroscopy or CT mandatory. Procedures performed without guidance, or under ultrasound or MRI guidance, are not reasonable and necessary
First diagnostic block	Medial branch block preferred; intraarticular block only where MBB is precluded by documented anatomic restriction or where therapeutic intraarticular injection is indicated
Threshold for a positive diagnostic block	$\geq 80\%$ relief of primary (index) pain with duration consistent with the agent used, and restoration of previously painful movements
Confirmatory block	Required; minimum 2 weeks after the first block; must reproduce $\geq 80\%$ relief
Diagnostic frequency limit	Maximum 4 diagnostic sessions per covered spinal region per rolling 12 months
Therapeutic facet joint blocks: entry	Two diagnostic procedures each with $\geq 80\%$ relief, plus documentation of why the patient is not a candidate for RFA
Therapeutic facet joint blocks: continuation	$\geq 50\%$ consistent pain relief or $\geq 50\%$ functional improvement sustained ≥ 3 months from the prior procedure
Therapeutic block frequency limit	Maximum 4 therapeutic sessions per covered spinal region per rolling 12 months
Radiofrequency ablation: entry	Two medial branch blocks each with $\geq 80\%$ sustained relief of index pain
Radiofrequency ablation: repeat	$\geq 50\%$ consistent improvement in pain or function sustained ≥ 6 months
RFA frequency limit	Maximum 2 radiofrequency sessions per covered spinal region per rolling 12 months
Levels per session	One to two levels, unilateral or bilateral, per spinal region; three- and four-level procedures are not covered
Regions per session	One spinal region per session
Re-diagnosis	Repeat diagnostic procedures where ≥ 2 years have elapsed since the last RFA and the source of recurrent pain is in question
Facet cyst aspiration or rupture	Requires advanced imaging confirming nerve root compression or displacement by a synovial cyst plus documented related symptoms; repeatable once per cyst if $\geq 50\%$ improvement for ≥ 3 months
Explicitly non-covered	Intraarticular and extraarticular prolotherapy; non-thermal denervation including chemical, low-grade thermal ($< 80^\circ\text{C}$), laser neurolysis, and cryoablation; intra-facet implants; facet procedures after anterior lumbar interbody fusion; diagnostic blocks at the level of a previously successful RFA

CT = computed tomography; MBB = medial branch block; MRI = magnetic resonance imaging; RFA = radiofrequency ablation.

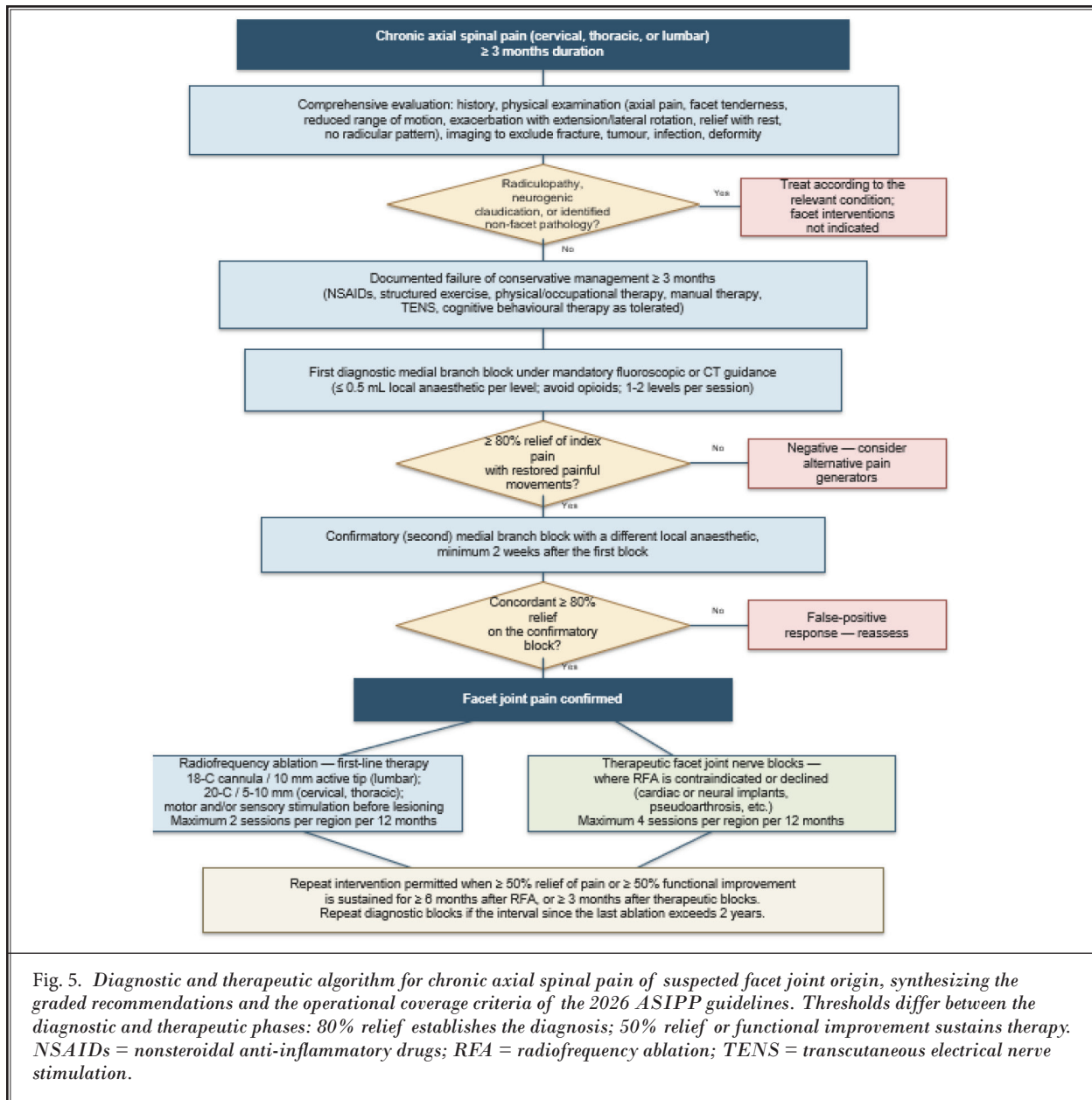


Fig. 5. Diagnostic and therapeutic algorithm for chronic axial spinal pain of suspected facet joint origin, synthesizing the graded recommendations and the operational coverage criteria of the 2026 ASIPP guidelines. Thresholds differ between the diagnostic and therapeutic phases: 80% relief establishes the diagnosis; 50% relief or functional improvement sustains therapy. NSAIDs = nonsteroidal anti-inflammatory drugs; RFA = radiofrequency ablation; TENS = transcutaneous electrical nerve stimulation.

additionally document cardiovascular and pulmonary findings together with a written statement of overall health status. Imaging at a minimum comprises radiographs plus advanced imaging with CT or MRI to assess for discogenic pathology, other potential pain generators, and procedural hazards (34,174).

Two documentation points recur as the most common causes of denied claims and are worth isolating. First, both preoperative and postoperative pain scores must be recorded after each diagnostic block, using the

same scale throughout, together with the percentage of relief and the patient's ability to perform previously painful movements. Second, the same paired documentation, including the ability to perform extension and lateral rotation, is required after therapeutic interventions. Acceptable instruments include verbal rating scales, the numeric rating scale, the visual analogue scale, the Pain Disability Assessment Scale, the ODI, the Quebec Back Pain Disability Scale (QBPDS), the Roland-Morris scale, the Back Pain Functional Scale (BPFS), and

Patient-Reported Outcomes Measurement Information System (PROMIS) profile domains. The scale used must itself be documented.

Conservative management preceding diagnostic blockade must also be documented. The guideline enumerates physical and occupational therapy, chiropractic care, extracorporeal shockwave therapy, and structured exercise programs; NSAID drugs at the lowest effective dose for the shortest duration; manual therapy including spinal manipulation, with careful patient selection; cognitive behavioral therapy where chronic pain has produced secondary anxiety or depression; and transcutaneous electrical nerve stimulation, for which the evidence is acknowledged to be mixed (1).

DISCUSSION

What the Recommendations Establish

Read as a set, the 37 recommendation items make four claims that are supported at Level II or better and that together define the defensible core of facet joint intervention.

The first is that image guidance is not optional. This is the only Level I recommendation in the document and the only one framed as mandatory. Fluoroscopy or CT must be used for every facet joint intervention; ultrasound and magnetic resonance guidance are excluded (1,34).

The second is that the diagnosis must be established by controlled blockade using an 80% relief threshold. The evidence for this is not merely that dual blocks reduce false positives, a proposition that could be dismissed as arithmetically trivial, but that patients selected by dual blocks with 80% relief retain the diagnosis at 2 years in 89.5% of cases whereas those selected by single blocks with 50% relief retain it in 51% (25,71). The relief threshold is not a bureaucratic hurdle; it is the difference between treating facet joint pain and treating a population half of whom do not have it.

The third is that medial branch interventions, whether by ablation or by therapeutic nerve block, are effective in appropriately selected patients. Both carry Level II evidence with moderate strength of recommendation in the cervical and lumbar spine, and therapeutic nerve blocks carry the same grading in the thoracic spine, where the evidence for ablation is only Level III. Intraarticular injections do not reach this standard in any region (1,28).

The fourth is that repeat intervention is legitimate. Level II evidence with a moderate to strong recommen-

dation supports repetition with outcomes comparable to the initial procedure, provided the initial procedure succeeded (103). The corollary, that repetition after a failed initial ablation has a success rate approaching zero, is equally well supported and equally binding.

Where the Recommendations Are Deliberately Permissive

Careful reading of the guideline requires attention to what it declines to specify. No recommendation is made regarding electrode or needle type, the evidence being Level IV. Electrode position, parallel or perpendicular, attracts only a weak recommendation at Level IV, notwithstanding that several other guidelines favor the parallel technique; the panel observed that the studies employing parallel placement also applied more rigorous selection, confounding the comparison, and that large observational series using a perpendicular single-lesion approach have produced comparable outcomes. Temperature and lesion duration are not prescribed as a single pair of values, the panel having concluded from a randomized trial of three temperature-duration combinations delivering equivalent total energy that energy delivery rather than temperature per se is the operative variable.

This restraint is a strength rather than a deficiency. Guidelines that specify parameters beyond what the evidence supports invite two failures: they are cited against clinicians whose technique differs without evidence of inferiority, and they are incorporated into coverage policy as necessity criteria. The 2026 document specifies cannula gauge and active tip length, for which comparative evidence exists, and declines to specify the remainder (1).

Relationship to Other Contemporary Guidelines

Several guideline documents addressing overlapping territory have been published in recent years, and it is useful to locate the ASIPP recommendations among them. Table 9 sets out the principal points of concordance and divergence.

The most substantive divergence concerns the diagnostic threshold, and it is not a disagreement about data so much as a disagreement about which outcome should adjudicate validity. The multispecialty consensus position rests on the observation that radiofrequency outcomes do not differ significantly across relief cut-offs above 50%, and that the cost of obtaining two blocks may exceed the value of the specificity gained

Table 9. Comparison of the 2026 ASIPP recommendations with other contemporary guidance.

Issue	ASIPP 2026	Other guidance
Diagnostic relief threshold	≥ 80% relief on two controlled blocks	Multispecialty consensus guidelines for lumbar and cervical facet pain accept a 50% threshold and, in selected settings, a single block or no block
Number of diagnostic blocks	Two (dual comparative blocks)	German national guideline: two blocks; multispecialty consensus: variable, cost-driven arguments for one or none
Image guidance	Fluoroscopy or CT mandatory (Level I, strong)	Uniform agreement across guidelines
Electrode position	Parallel or perpendicular (Level IV, weak)	Multispecialty consensus guidelines and ASPN recommend parallel placement; German national guideline recommends parallel
Stimulation testing	Motor and/or sensory testing before RFA (Level II, strong)	SIS recommends anatomic localization without stimulation; BPS recommends sensory only; multispecialty consensus recommends both
Repeat RFA	Up to twice yearly after ≥ 50% relief sustained ≥ 5–6 months; no lifetime limit	NICE advises caution pending long-term data; multispecialty consensus recommends repetition after ≥ 3 and preferably ≥ 6 months, no more than twice yearly
Intraarticular corticosteroid	Weak recommendation; Level III–V depending on region and time horizon	Multisociety consensus (2026): benefit concentrated in patients with an inflammatory contribution, including SPECT-positive patients
Therapeutic medial branch blocks	Level II, moderate, in all three regions; a legitimate alternative to RFA	Not endorsed as a stand-alone therapeutic modality in most other guidance; coverage policy requires justification for using them instead of RFA
Sedation	Mild sedation permissible; benzodiazepines do not invalidate diagnostic blocks; opioids must be avoided Moderate or MAC allowed for ablation	Coverage policy: moderate/deep sedation and MAC not reasonable and necessary except in defined circumstances
Antithrombotic therapy	Facet interventions classified low risk; therapy may be continued	Broadly consistent with contemporary regional anesthesia and interventional guidance

ASPN = American Society of Pain and Neuroscience; CT = computed tomography; MAC = monitored anesthesia care; NICE = National Institute for Health and Care Excellence; RFA = radiofrequency ablation; SPECT = single photon emission computed tomography.

(32,77,79). The ASIPP position rests on the observation that the durability of the diagnosis at 2 years differs sharply between the two thresholds, and that short-term denervation response is a poor proxy for having correctly identified the pain generator (25,71). Both positions are internally coherent. Resolving the dispute would require a trial in which patients selected by each standard are followed for several years with parallel assessment of diagnostic durability and of total health care utilization, and no such trial has been conducted.

A second divergence concerns therapeutic medial branch blocks. ASIPP cites Level II evidence in all three regions, with cost-utility comparable to ablation and, in the cervical spine, superior relief at 6 and 12 months. This position differs from coverage policies that require documentation of why ablation cannot be performed before a therapeutic block will be reimbursed (34,35).

Implications for Practice

For practicing interventionalist, the recommendations reduce to a sequence. Confirm that the patient has predominantly axial pain of at least 3 months duration with a compatible examination and no radicular or alternative pathology, and that conservative management has failed and been documented. Perform

a diagnostic medial branch block under fluoroscopy or CT with no more than 0.5 mL per level, avoiding opioids and using at most low-dose benzodiazepine sedation. Require at least 80% relief with restoration of previously painful movement. Repeat the block with a different local anesthetic after at least 2 weeks and require concordant relief. Proceed to RFA as first-line therapy, using an 18-gauge cannula with a 10 mm active tip in the lumbar spine or a 20-gauge cannula with a 5 or 10 mm tip in the cervical and thoracic spine, with motor or sensory stimulation before lesioning. Where ablation is contraindicated by instrumentation, an implanted electronic device, pseudarthrosis, or patient preference, use therapeutic facet joint nerve blocks, which carry equivalent evidentiary support. Repeat when at least 50% relief has been obtained and lost, after at least 6 months for ablation or 3 months for blocks. Document pain and function before and after every procedure using the same instrument.

For the patient, the implications are more modest than the procedural detail may suggest. Approximately one-third of patients with chronic low back pain and one-half of those with chronic neck pain, when rigorously assessed, have facet-mediated pain. Of those who proceed to ablation after controlled blockade, roughly

60% to 65% achieve at least 50% relief at 12 months, with a typical duration of benefit of about 10 months per procedure. Roughly 30% of patients who undergo ablation elect not to repeat it, transitioning to therapeutic blocks or other treatment. These are the figures that should inform consent (24,100,101).

Research Priorities

The guideline identifies evidentiary gaps, and they are substantial. Table 10 sets out the domains in which the evidence is Level III or weaker, which is where research effort should be concentrated.

Beyond these specific questions, two structural problems limit the field. The first is heterogeneity of selection. Trials that enroll patients on clinical grounds, on a single block with 50% relief, and on dual blocks with 80% relief are studying materially different populations and pooling them produces estimates that describe none of them. The second is heterogeneity of outcome definition. Success has been variously defined as complete relief, 80% relief, 75% relief, or 50% relief, with follow-up horizons from 3 months to 2 years, and the same dataset can yield success rates from 31% to 61% depending on which definition is applied. Until the field adopts a common core outcome set and a common selection standard, meta-analysis

will continue to produce wide confidence intervals that reflect methodologic variation rather than biological uncertainty.

Limitations

The limitations of the guidelines, and of this summary, should be stated plainly.

First, the underlying evidence is uneven. Although 41 randomized controlled trials informed the therapeutic recommendations, only 5 of these were rated high quality under GRADE across all three intervention types. Nine of 17 radiofrequency trials and 10 of 14 intraarticular trials were rated low quality under GRADE (1). Several recommendations, notably those concerning implanted devices, rest on case series and small observational cohorts.

Second, the recommendations were developed by a panel convened by a professional society whose members perform the procedures under consideration. The guideline documents its conflict of interest procedures in detail, including recusal, editorial safeguards, and a requirement for 80% agreement among panelists without a primary conflict, and 100% acceptance was achieved for all items. Unanimity of this kind is nonetheless unusual in guideline development and should be interpreted with the composition of the

Table 10. Domains with Level III or weaker evidence, in order of clinical priority.

Domain	Current level	Research needed
Thoracic radiofrequency ablation	III	Adequately powered randomized trials; only one small randomized trial and five observational studies currently exist
Intraarticular injection, lumbar	IV	Randomized trials with controlled-block selection; no trial in this domain achieved high GRADE quality
Intraarticular injection, cervical, long term	V	Any prospective controlled data beyond short-term follow-up
RFA in patients with metallic instrumentation	IV	Prospective safety registries with hardware thermometry; comparative effectiveness against therapeutic blocks
RFA in patients with neuromodulation and intrathecal devices	III to V	Device-specific safety data, particularly for cervically implanted systems where 15 cm separation is unachievable
Electrode type and geometry	IV	Head-to-head randomized comparison of conventional, cooled, and multitined electrodes with uniform selection criteria
Electrode position	IV	Randomized comparison of parallel and perpendicular placement with identical, rigorous selection criteria in both arms
Advanced imaging for joint selection	III (SPECT); V (others)	Prospective validation of SPECT against dual controlled blocks with long-term outcome
Psychological modifiers	III	Prospective stratification by validated psychometric instruments with long-term diagnostic durability as the endpoint
Comparative effectiveness of therapeutic blocks versus RFA	II (each separately)	Direct randomized comparison with parallel cost utility analysis
Optimal diagnostic threshold	I to II	Randomized comparison of 50% single-block and 80% dual-block selection with multi-year diagnostic durability and total utilization as endpoints

GRADE = Grading of Recommendations Assessment, Development and Evaluation; RFA = radiofrequency ablation; SPECT = single photon emission computed tomography.

panel in mind. Of 48 members, 31 had anesthesiology as their primary specialty; primary care, orthopedic surgery, neurosurgery, physical therapy, and patient representation were not represented in the manner seen in some comparable guideline panels, such as the German national guideline, which included a patient representative (33).

Third, several recommendations sit in tension with contemporaneous guidance from other societies, most notably the diagnostic relief threshold and the role of therapeutic medial branch blocks. This summary has set out both positions but cannot adjudicate between them.

Fourth, the cost utility figures are derived predominantly from analyses conducted by the guideline authors within a single practice environment, using actual reimbursement data multiplied by a fixed factor to estimate indirect costs. They are internally consistent and methodologically transparent, but they are not independent, and international analyses conducted under different health systems have reached less favorable conclusions.

Fifth, this article is a summary. It compresses a 228-page document with more than 1,000 references into a form intended to be read in a single sitting. Evidence tables, individual study appraisals, meta-analytic forest plots, and the full methodologic quality assessments are not reproduced. Where a clinical or policy decision turns on the detail of a particular study, the primary guideline document should be consulted.

CONCLUSION

The 2026 ASIPP guidelines for facet joint interventions provide a graded, internally consistent framework for the diagnosis and management of chronic axial spinal pain of facet joint origin. Thirty-seven recommendation items were developed by a 48-member multidisciplinary panel through systematic review, dual-instrument quality appraisal, GRADE certainty assessment, and modified Delphi consensus, with unanimous acceptance among 39 voting panelists.

The recommendations converge on a defensible core. Image guidance with fluoroscopy or CT is mandatory. Diagnosis rests on two controlled medial branch blocks demonstrating at least 80% relief of index pain, performed no earlier than 3 months from onset and after documented failure of conservative management, without confounding opioid administration. RFA and therapeutic facet joint nerve blocks are both supported at Level II with moderate strength of recommendation in the cervical and lumbar spine, with

therapeutic nerve blocks alone reaching that standard in the thoracic spine. Intraarticular injection retains a narrow role. Repeat intervention is supported where the initial procedure succeeded and its benefit has waned. Facet joint interventions are low-risk procedures with respect to antithrombotic therapy and are cost-effective at approximately \$4,600 to \$5,500 per quality-adjusted life year, an order of magnitude below surgical comparators.

Equally important is where the recommendations stop. Electrode type, electrode orientation, and precise temperature-duration protocols are not specified because the comparative evidence does not support specification. Recommendations concerning metallic instrumentation and implanted electronic devices are weak and rest largely on observational data; where the required separation from an implanted generator cannot be assured, therapeutic facet joint nerve blocks carry a higher level of evidence than ablation and are the preferred alternative.

The principal deficiency in the field is not a shortage of studies but a shortage of comparability among them. Heterogeneity in patient selection and in the definition of success accounts for much of the apparent inconsistency in the literature and for the wide confidence intervals that characterize its meta-analyses. Priority should be given to adequately powered randomized trials in the thoracic spine and in intraarticular therapy, to direct comparison of therapeutic nerve blocks against RFA, to device-specific safety data in patients with neuromodulation systems, and above all to a trial capable of adjudicating the diagnostic threshold question on the basis of multi-year diagnostic durability rather than short-term procedural response. Until such evidence exists, the recommendations summarized here represent the most complete graded synthesis available and should be viewed as a framework to support clinical reasoning and decision-making, rather than as a standard of care.

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Conflicts of Interest

Dr Christo is part of The Alliance for Patient Advocacy. No compensation.

Dr. Soin has several patents in non-opioid pain pharmaceuticals and neuromodulation (SCS and PNS) and artificial intelligence, has leadership roles: OHSIPP-CEO and ASIPP- Director, has stock options with Neuros

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All other authors certify that he or she, or a member of his or her immediate family, has no commercial association (i.e., consultancies, stock ownership, equity interest, patent/licensing arrangements, etc.) that might pose a conflict of interest in connection with the submitted article.

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