

The Appropriateness of Spinal Manipulation for Low-Back Pain

**Indications and Ratings by an
All-Chiropractic Expert Panel**

Paul G. Shekelle, Alan H. Adams, Mark R. Chassin,
Eric L. Hurwitz, Rolla Edward Park, Reed B. Phillips,
Robert H. Brook

RAND

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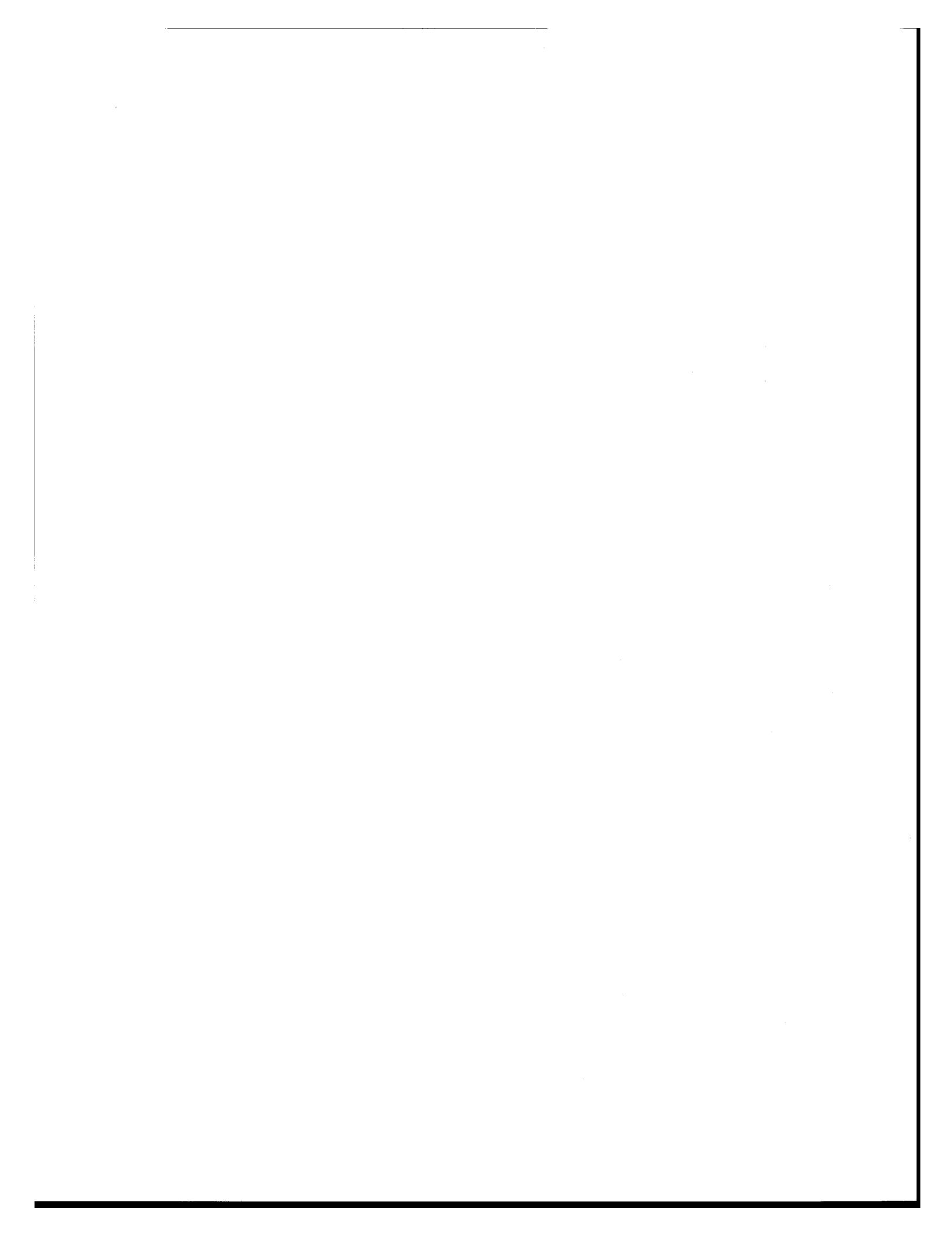
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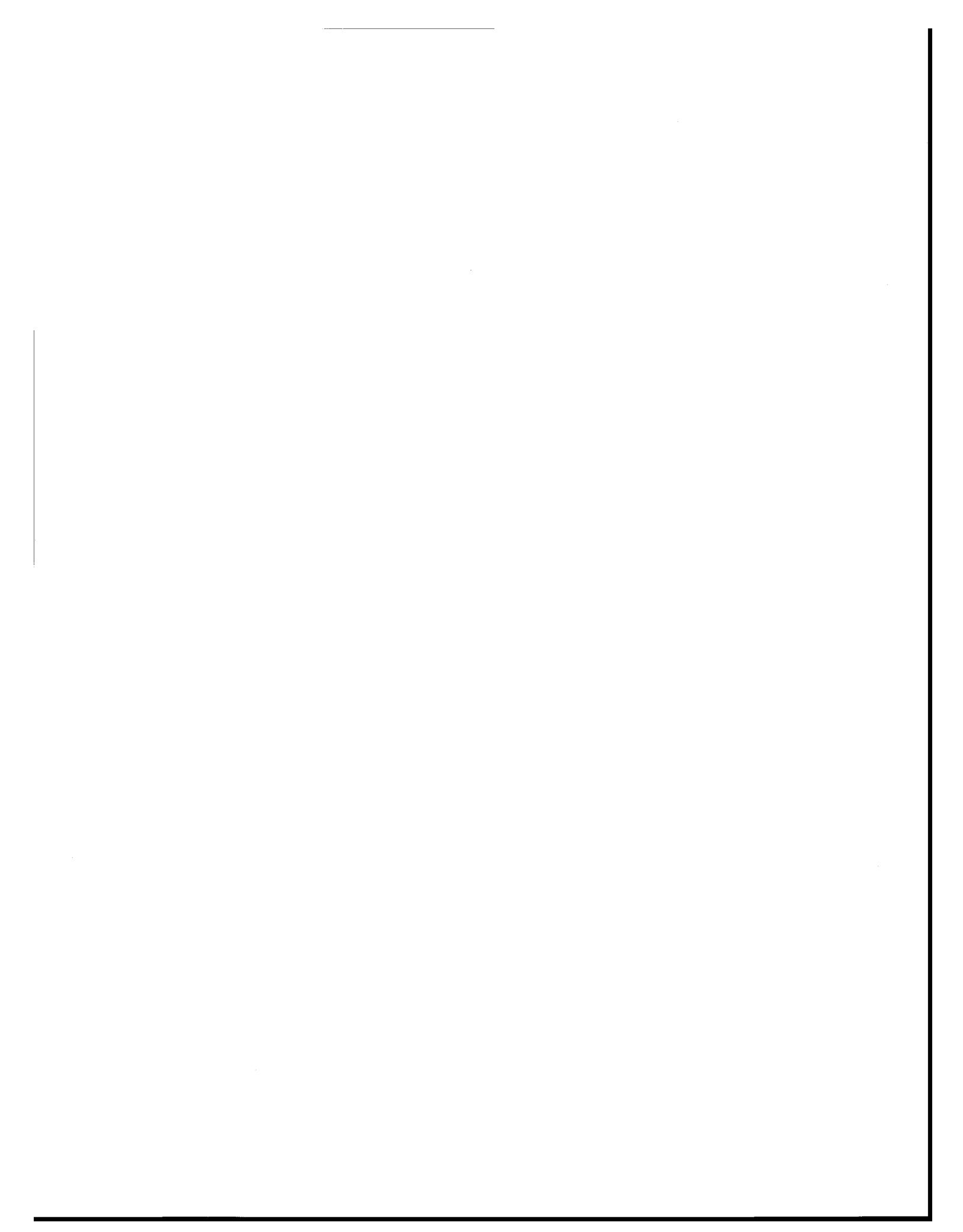
PREFACE

This report presents results from one part of the RAND Appropriateness of Spinal Manipulation for Low-Back Pain Study. The study is designed to ascertain the clinical criteria for the appropriate use of spinal manipulation for low-back pain from chiropractors and medical specialists and then to investigate the use of chiropractic services (particularly spinal manipulation) in a random sample of practicing chiropractors. The study has four major stages:

- Stage I reviewed the medical literature to summarize knowledge about efficacy, complications, and indications for spinal manipulation for low-back pain.
- Stage II convened a panel of back-pain experts from the disciplines of orthopedics, chiropractic, osteopathy, internal medicine, family medicine, and neurology to discuss and rate for appropriateness a large number of indications for spinal manipulation for low-back pain.
- Stage III convened a second, all-chiropractic panel of experts to discuss and rate the same indications for spinal manipulation for low-back pain.
- Stage IV will analyze the use of services in a random sample of practicing chiropractors, with an emphasis on abstraction of medical records for patients treated for low-back pain.

This report presents the results of the third stage. It describes the methods used for assessing the appropriateness of spinal manipulation by a panel of expert chiropractors and presents the panel's actual ratings of 1570 indications for the use of spinal manipulation for low-back pain. A later report will present an in-depth analysis of these ratings, comparing and contrasting them with the ratings by the multidisciplinary expert panel. This report should be of interest to clinicians who perform spinal manipulation, to clinicians who deal with patients with back pain, and to health researchers concerned with the appropriate indications for performing medical procedures.

This research is a joint undertaking of RAND; the Veterans Administration West Los Angeles Section of General Internal Medicine, Department of Medicine; the Consortium for Chiropractic Research (CCR); the Foundation for Chiropractic Education and Research (FCER); and Value Health Sciences, Inc. Support has been provided by the CCR and the FCER.



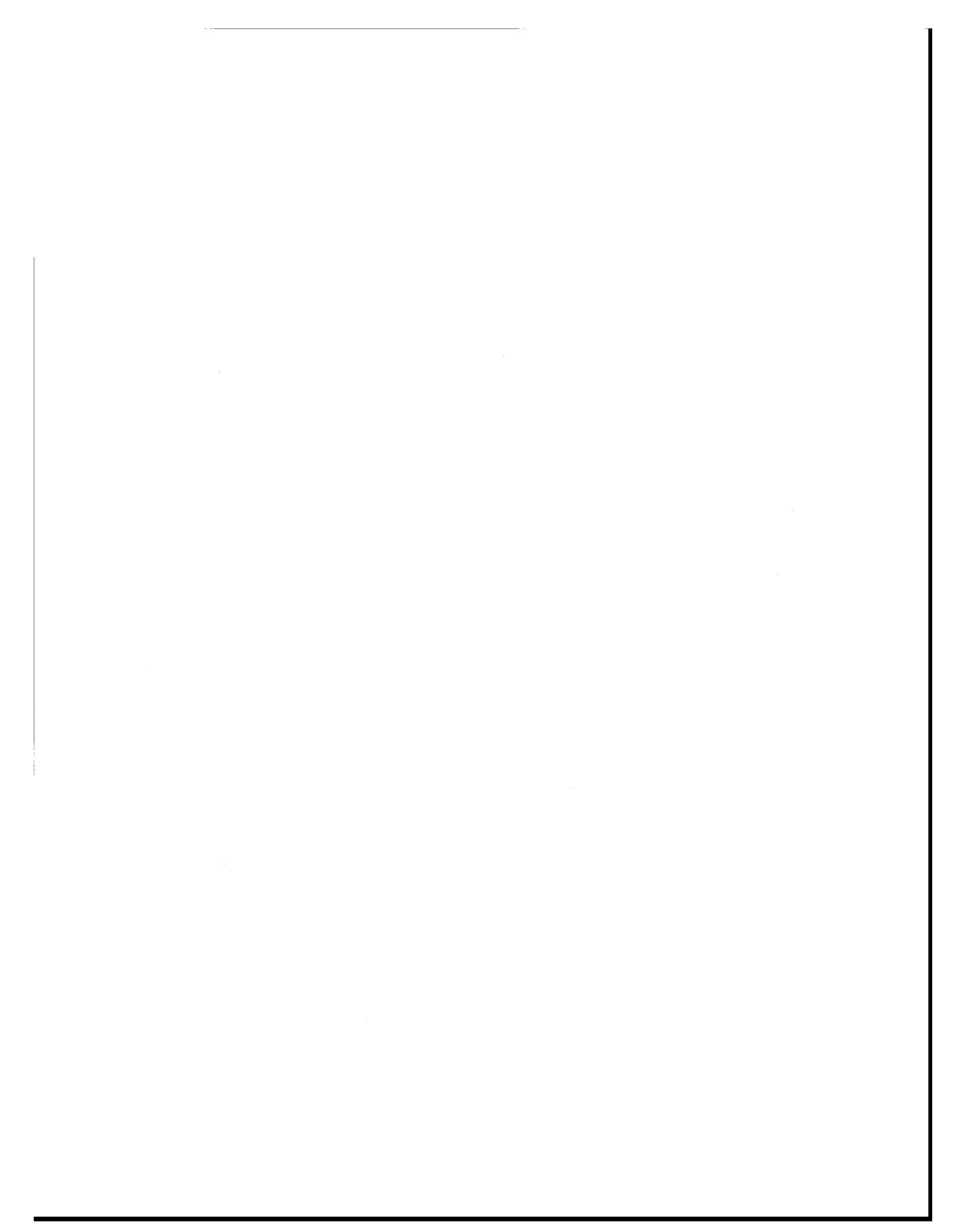
SUMMARY

This report contains the indications and ratings for appropriateness for spinal manipulation that reflect the findings of a nine-member panel of chiropractors. The panel members rated the appropriateness of indications twice, using a nine-point scale where 1 = extremely inappropriate, 5 = equivocal, and 9 = extremely appropriate. The panelists were chosen because of their clinical expertise, influence, and diversity of geographic location. Further, they represented both academic and community practice.

The initial ratings of appropriateness were done individually and without group discussion. The second-round ratings used a structured method, which was based on consensus procedures developed for the RAND/UCLA Health Services Utilization Study.

The results showed that these chiropractic physicians were able to formulate detailed lists of indications for spinal manipulation for low-back pain and rate their appropriateness.

There was an increase in agreement and a decrease in disagreement between the initial round and the final round. The final round rated 1570 indications, with agreement on 63% and disagreement on 8% of the indications.



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The authors gratefully acknowledge Bernard Rineberg, M.D., for his advice and review of this project and Richard Kravitz, M.D., for his thoughtful and constructive critique of this report. The authors are also indebted to the nine members of the spinal manipulation panel:

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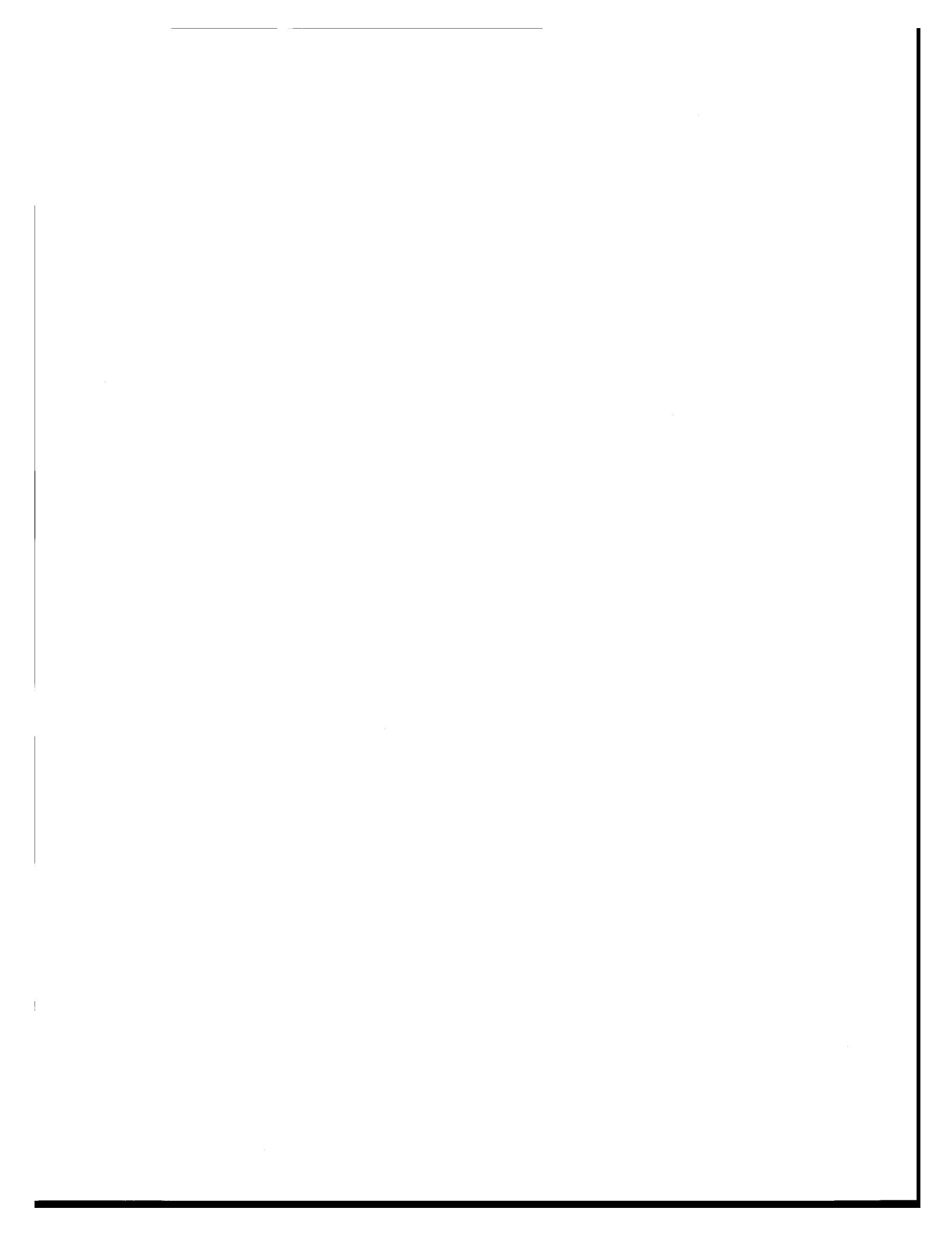
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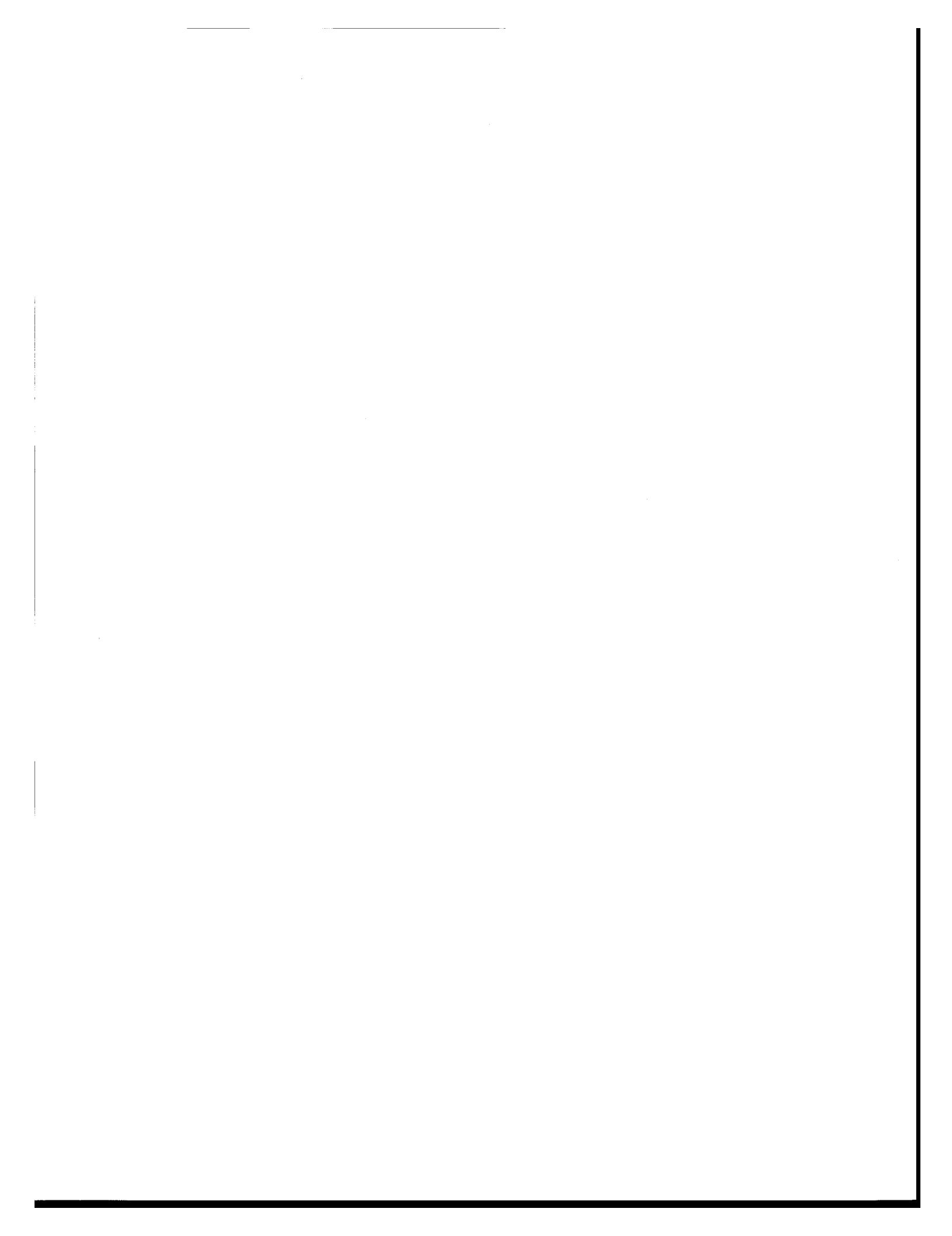


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1. METHODS

The indications and ratings for spinal manipulation for low-back pain reported here reflect the findings of a nine-member panel of clinicians who rated indications twice. The initial ratings of appropriateness were made individually and without group discussion. The second-round ratings followed a structured method that was based on procedures often used to bring people closer to consensus or agreement. These ratings were conducted using the method developed during the RAND/UCLA Health Services Utilization Study and described in detail elsewhere.¹

The panelists were chosen because of their clinical expertise, community influence (in professional organizations, for example), and diversity of geographic location, with all four major census regions represented. Also, the panelists were selected to represent academic and community practice. Previously, a multidisciplinary panel of experts had been selected to rate for appropriateness the use of spinal manipulation.² Because of the perception that chiropractic as a profession is more diverse than allopathic medicine, we felt it would be useful to compare these results with those of an all-chiropractic expert panel. Additionally, results of an all-chiropractic expert panel might have more meaning to practicing chiropractors. Therefore, for this phase of the study, all of the panelists were chiropractors. The persons who served as panelists are listed in the Acknowledgments.

INITIAL INDICATIONS LIST

The project staff compiled the initial indications list, using the literature review, the advice of chiropractors and an orthopedic surgeon, and direct observation of chiropractors in their offices as guides. The indications categorized persons in terms of their history, symptoms, physical and radiographic findings, and response to prior treatment. We attempted to compile lists that were detailed, comprehensive, and manageable. The lists needed enough detail so that patients presenting with a particular indication would be relatively homogeneous, in the sense that doing the procedure would be equally appropriate (or inappropriate) for all of them. We sought to include all indications for doing the procedure for low-back pain that might arise in practice. At the same time, we tried to keep the total number of indications low enough to allow the panelists to rate all of them within a reasonable length of time.

Our initial list of indications was modified by the first, multidisciplinary expert panel, to better fit their clinical experience. We used this final indication list as the starting framework for this, the all-chiropractic expert panel.

¹A complete discussion of this method may be found in R. E. Park, A. Fink, R. H. Brook, et al., *Physician Ratings of Appropriate Indications for Six Medical and Surgical Procedures*, RAND, R-3280-CWF/HF/PMT/RWJ, July 1986. A shortened version also appears with the same authors and title in the *American Journal of Public Health*, Vol. 76, 1986, pp. 766-772.

²See Paul G. Shekelle, Alan H. Adams, Mark R. Chassin, Eric L. Hurwitz, Rolla Edward Park, Reed B. Phillips, and Robert H. Brook, *The Appropriateness of Spinal Manipulation for Low-Back Pain: Indications and Ratings by a Multidisciplinary Expert Panel*, RAND, R-4025/2-CCR/FCER, 1991.

Analogous to the method described by Park et al., the indications were organized into "chapters," which in most cases corresponded to major symptoms or primary problems. The chapter titles from the initial indications list are as follows:

1. Acute low-back pain, no neurological findings or sciatic nerve irritation
2. Acute low-back pain, no neurological findings but with sciatic nerve irritation
3. Acute low-back pain, minor neurological findings, no sciatic nerve irritation
4. Acute low-back pain, minor neurological findings with sciatic nerve root irritation
5. Acute low-back pain, major neurological findings
6. Subacute low-back pain, no prior manipulative treatment
7. Subacute low-back pain, prior manipulation with a favorable response
8. Chronic low-back pain, no prior manipulative treatment
9. Chronic low-back pain, prior manipulative treatment
10. Chronic low-back pain, prior laminectomy
11. Other.

In addition to rating appropriateness, panelists also rendered their opinions concerning the frequency and duration of performing spinal manipulation for appropriate indications.

INITIAL RATINGS

We sent the literature review,³ rating sheets, and instructions to the panelists. The literature review gave all panelists equal access to a central core of relevant literature. The rating sheet listed 1550 indications for spinal manipulation and provided space for an appropriateness rating on a scale of 1 to 9. Figure 1 shows one page from the initial rating sheet.

The instructions asked the panelists to rate the appropriateness of each indication using their own best clinical judgment (rather than their perceptions of what other experts might say) and considering an average group of patients presenting to an average U.S. chiropractic physician who performed spinal manipulation. "Appropriate" was defined to mean that the expected health benefit (increased life expectancy, relief of symptoms, reduction in anxiety, improved functional capacity, etc.) exceeds the expected health risks (mortality, morbidity, pain produced by the procedure) by a sufficiently wide margin that the procedure is worth doing. Extremely appropriate indications should be rated 9, equivocal indications (neither clearly appropriate nor clearly inappropriate) should be rated 5, and extremely inappropriate indications should be rated 1. These are in essence the same instructions as those provided in the previous consensus panels described by Park et al.

The instructions also included definitions of important terms used in the indications lists. The panelists were encouraged to modify and supplement the indications lists to make them

³See Paul G. Shekelle, Alan H. Adams, Mark R. Chassin, Eric L. Hurwitz, Reed B. Phillips, and Robert H. Brook, *The Appropriateness of Spinal Manipulation for Low-Back Pain: Project Overview and Literature Review*, RAND, R-4025/1-CCR/FCER, 1991.

		RESPONSE TO PRIOR MANIPULATION																		
		No Prior Manipulation					Favorable Response (Similar Area)					Unfavorable or No Response (Dissimilar Area)								
A.	NO LS SPINE RADIOGRAPHS AND PRESENCE OF RISK FACTORS FOR CONTRAINdicATIONS	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(1- 4)
B.	NO LS SPINE RADIOGRAPHS AND ABSENCE OF RISK FACTORS, AND:																			
1.	No physical findings of vertebral or SI joint dysfunction, and:																			
a.	No change in pain since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(5- 8)
b.	Pain worse since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(9- 12)
c.	Pain better since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(13- 16)
2.	Physical findings of vertebral joint dysfunction, and:																			
a.	No change in pain since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(17- 20)
b.	Pain worse since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(21- 24)
c.	Pain better since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(25- 28)
3.	Physical findings of SI joint dysfunction, and:																			
a.	No change in pain since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(29- 32)
b.	Pain worse since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(33- 36)
c.	Pain better since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(37- 40)
C.	LS SPINE RADIOGRAPHS SHOW NO CONTRAINdicATIONS, NO IMAGING STUDIES DONE, OR IMAGING STUDIES SHOW NO HRF AND NO SPINAL STENOSIS, AND:																			
1.	No physical findings of vertebral or SI joint dysfunction, and:																			
a.	No change in pain since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(41- 44)
b.	Pain worse since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(45- 48)
c.	Pain better since onset	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	(49- 52)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Figure 1—Initial Form Used by Panelists to Rate the Appropriateness of Indications for Spinal Manipulation

more complete and more clinically relevant, but they suggested very few changes during this initial rating step.

Figure 2 shows the first page of the form for rating treatment frequency and duration for patients with appropriate indications for spinal manipulation for patients with acute low-back pain. These forms allowed the panelist to write in the number of manipulations that might be needed for a patient with an appropriate indication for the use of this treatment.

We know from informal conversations with the panelists that completing the initial ratings required about 30 minutes per 100 indications.

PANEL MEETINGS

The spinal manipulation panel met in Santa Monica for one day in May 1991. After brief preliminaries, panelists spent the entire day discussing and rerating the indications.

The discussion was jointly led by the two physicians responsible for the initial indications lists and familiar with the consensus panel process. These same two physicians led the multidisciplinary expert panel. They were assisted by other physicians and social scientists on the project staff.

After agreeing on the definitions, the panelists discussed the indications one chapter at a time. During the discussion, they had in front of them reports that summarized the initial ratings for that chapter. Figure 3 shows one page from that printout.

By looking at the printout, the panelists could see the distribution of initial ratings. The numbers above the 1-to-9 rating line show how many panelists assigned each rating. Each panelist received a different printout. The distribution of the ratings was the same on all, but the caret (^) below the rating line showed the initial rating assigned by a particular panelist so that he or she could see his or her own initial rating. For example, the panelist whose report is shown in Figure 3 assigned ratings of 1, 1, 1, and 1 to the first four indications (reading horizontally across the top of the page). This procedure preserved the confidentiality of individual panelists' ratings while allowing each panelist to see his or her own rating in addition to a distribution of the entire group's ratings.

The indications list was modestly revised during discussions at the meetings. The changes were all intended to tailor the indications so that they better fit clinically relevant categories and to make the groups more homogeneous with respect to appropriateness. For example, the panel felt that in one chapter patients with continued psychosocial or biomechanical stress should be rated separately rather than combined as one group. This served to make a previously heterogeneous group of patients more homogenous, allowing panelists to rate each condition separately, rather than having to "average" or rate for the worst (or best) presentation. Additionally, the panel felt that patients with chronic low-back pain and prior manipulative therapy should be separated into two groups: those with a favorable response to manipulation and those with no response or an unfavorable response.

Importantly, the panel also decided to rate indications for appropriateness according to a strict definition of spinal manipulation and not try to include other, nonmanipulative forms

TREATMENT DURATION FOR PATIENTS WITH ACUTE LOW BACK PAIN

You have just completed rating the appropriateness of spinal manipulation for patients with acute low back pain. Another issue of critical importance in judging the appropriateness of manipulation in this setting is the quantity or duration of treatment. Therefore, this next exercise asks for your expert clinical judgment in addressing this issue.

For the patient with an appropriate indication in each of the following general categories, please indicate:

- 1) the **NUMBER** of manipulations needed for the **AVERAGE** patient to achieve a response (for instance, for an injured worker to return to full duty);
- 2) the **NUMBER** of subsequent manipulations (if any) that are needed for the average patient to reach the maximal therapeutic benefit
- 3) the **NUMBER** of patients out of 100 that would need more than twice the number of manipulations listed in 1.

	<u>ACHIEVE A RESPONSE</u>	<u>MAXIMAL THERAPEUTIC BENEFIT</u>	<u>NUMBER OF PATIENTS NEEDING MORE THAN TWICE AVERAGE</u>
A. Patient has no neurologic findings, no sciatic nerve irritation, AND no radiographs (or radiographs show no contraindication) AND no imaging studies (or imaging studies show no HNP and no spinal stenosis)	_____	_____	_____
B. Patient has no neurologic findings, no sciatic nerve irritation, AND radiographs show no contraindication, AND imaging studies show posterolateral HNP with no free fragment, no spinal stenosis and no central HNP	_____	_____	_____
C. Patient has no neurologic findings, no sciatic nerve irritation, AND radiographs show no contraindication, AND imaging studies show central HNP or spinal stenosis, or free fragment	_____	_____	_____

Figure 2—Treatment Duration for Patients with Acute Low-Back Pain

	No Prior Manipulation	RESPONSE TO PRIOR MANIPULATION								
		Favorable Response (Similar Area)				Unfavorable or No Response (Dissimilar Areas)				
		1	2	3	4	5	6	7	8	9
A. NO LS SPINE RADIOGRAPHS AND PRESENCE OF RISK FACTORS FOR CONTRAINDICATIONS	6	1	2	3	4	5	6	7	8	9
B. NO LS SPINE RADIOGRAPHS AND ABSENCE OF RISK FACTORS, AND:	1	2	3	4	5	6	7	8	9	1
1. No physical findings of vertebral or SI joint dysfunction, and:	4	2	1	3	4	5	6	7	8	9
a. No change in pain since onset	1	2	3	4	5	6	7	8	9	1
b. Pain worse since onset	4	2	1	3	2	1	1	4	1	2
c. Pain better since onset	4	1	2	3	4	5	6	7	8	9
2. Physical findings of vertebral joint dysfunction, and:	1	2	3	4	5	6	7	8	9	1
a. No change in pain since onset	1	2	3	4	5	6	7	8	9	1
b. Pain worse since onset	1	2	3	4	5	6	7	8	9	1
c. Pain better since onset	1	2	3	4	5	6	7	8	9	1
3. Physical findings of SI joint dysfunction, and:	1	2	3	4	5	6	7	8	9	1
a. No change in pain since onset	1	2	3	4	5	6	7	8	9	1
b. Pain worse since onset	1	2	3	4	5	6	7	8	9	1
c. Pain better since onset	1	2	3	4	5	6	7	8	9	1

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate.

Figure 3—The Form Used to Summarize Appropriateness Ratings for Spinal Manipulation and to Rate Indications a Second Time

of manual therapy (such as mobilization and flexion-distraction) in the definition of spinal manipulation. The panel felt separate consensus panels should deal with the appropriateness of other forms of therapy.

The panelists were also presented with the tabulation of the free responses for treatment frequency and duration, along with the mean and range of responses. After some discussion, the panelists restructured the definitions and response options, to better fit clinical practice. They then reevaluated the treatment duration for appropriate indications, using their own experience as a guide and acknowledging that there is little scientific evidence upon which to base these decisions.

ANALYSIS OF THE APPROPRIATENESS RATINGS

As noted in Park et al., for each indication, the median was used to measure the central tendency of the nine panelists' ratings and the mean absolute distance from the median to measure the dispersion of the ratings. These measures are well suited, we believe, to the appropriateness scale.

Our 1-to-9 scale is an ordinal scale. It ranks excess of benefit over risk (including negative values when risks exceed benefit). A 9 is always more appropriate than an 8, and an 8 is always more appropriate than a 7. But risk-benefit levels are not specified for each point on the scale, so that a difference between a 9 and an 8 is not necessarily the same as the difference between an 8 and a 7. This suggests that we should avoid such measures as means and standard deviations that treat intervals as though they were equal.

Our scale does have some characteristics of an interval scale, however. The center of the scale (5) is well anchored at the point where risk equals benefit. Although the ends (1 and 9) are not precisely specified, they are anchored to some degree. At 1, risks exceed benefits by a sufficiently wide margin that the procedure should definitely not be done. At 9, it definitely should be done.

It is established that using interval measures on ordinal scales seldom has much effect on the results. Shunning interval measures entirely would throw away information. A four-point difference on our scale may not represent precisely four times as big a difference in the excess of benefit over risk as a one-point difference, but it certainly represents a bigger difference. A strictly ordinal measure would not distinguish between them.

Table 1 describes the average median, the mean absolute deviation from the median, and the percentage of agreement, for the initial and final appropriateness ratings for spinal manipulation for low-back pain. The table shows that the ratings changed from an initial median of 4.61 to a final median of 3.95. The low ratings do not necessarily suggest that spinal manipulation is inappropriate, however, because manipulation may, in practice, be used for predominantly highly appropriate indications. The table also shows a substantial decrease in dispersion between the initial and final ratings.

On what fraction of the indications did the panelists agree and disagree? Our preferred definition of agreement is that, after discarding one extreme high and one extreme low rating,

Table 1
Median Ratings and Extent of Agreement and Disagreement on Appropriateness Ratings for Spinal Manipulation

Item	Initial Ratings	Final Ratings
Number of indications	1550	1570
Average median	4.61	3.95
Mean absolute deviation from median	1.39	0.83
Percentage of agreement	27.23	63.18
Percentage of disagreement	11.55	8.15

the remaining seven fall within any three-point range. According to our definition, at the conclusion of the process, panelists agreed on the ratings of just over one third of the indications. Our preferred definition of disagreement is that, after discarding one extreme high and one extreme low rating, at least one of the remaining seven falls in the lowest three-point region (1 to 3) and at least one falls in the highest (7 to 9). The panelists disagreed on the ratings in only 8% of the indications. This is markedly less disagreement than previous RAND consensus panels have had. However, this is the first nine-member panel composed of members from a single discipline. In the only previous panel with members from a single discipline, a seven-member panel of surgeons rating carotid endarterectomy agreed on 75% and disagreed on 5% of indications, using a modified definition of agreement and disagreement.

Each indication falls into one of three categories of appropriateness: appropriate, uncertain, or inappropriate. We classified an indication as "uncertain" for either of two reasons: The benefits and risks of doing the procedure were considered roughly the same (a median rating of 4 to 6), or the panelists disagreed on the proper rating. An indication was called "appropriate" if the panelists assigned a median rating in the 7-to-9 range without disagreement, and it was "inappropriate" if they assigned a 1-to-3 rating without disagreement.

Table 2 categorizes the final indications by their appropriateness ratings. The large number (48%) of indications felt to be inappropriate probably reflects our attempt to make exhaustive the list of potential indications for performing spinal manipulation. Appropriate and uncertain indications each accounted for about one-quarter of the total.

Table 2
Categories of Appropriateness of 1570 Indications for Spinal Manipulation

Category	Number of Indications	Percentage of Indications
Inappropriate	750	48
Uncertain	395	25
Appropriate	425	27

2. INTERPRETING THE RESULTS LISTINGS

READING KEY

The final list of rated indications for spinal manipulation appears in Appendices A-D. Figure 4 provides a key to reading the results. Note that the indications represented in Figure 4 are for a patient with acute low-back pain, without neurological findings or sciatic nerve root irritation, without radiographs of the lumbosacral spine, without risk factors for contraindications, without physical findings of vertebral or sacroiliac joint dysfunction, and no change in pain since onset.

This first indication, for a patient without prior spinal manipulation, received a median rating of 6 (equivocal). The measure of dispersion was 0.8, and the panelists agreed on the rating.

DEFINITIONS

1. Acute is defined as pain present for less than 3 weeks.
2. Subacute is defined as pain present for more than 3 weeks but less than 13 weeks.
3. Chronic is defined as pain present for more than 3 months.
4. Low-back pain is defined as pain in the region of the lumbosacral spine and its surrounding musculature.
5. Spinal manipulation is a manual procedure that includes specific short-lever dynamic thrusts (or spinal adjustments) or nonspecific long-lever manipulation. Chiropractic treatment uses spinal manipulation along with other measures, such as flexion-distraction, mobilization, traction techniques, and massage. The following ratings are for manipulation only.
6. No neurologic findings means the absence of major or minor neurologic findings, as described below.
7. Sciatic nerve irritation means typical radicular pain (shooting pain in the posterior thigh/calf) and positive straight-leg raising (positive = pain distal to knee).
8. Minor lower limb neurologic findings are at least one of the following:
 - (a) Asymmetrically decreased ankle reflex
 - (b) Documented dermatomal sensory deficit
 - (c) Nonprogressive unilateral muscle weakness and/or motor loss.
9. Major neurologic findings are at least one of the following:
 - (a) Progressive unilateral muscle weakness and/or motor loss documented by repeat exam over time
 - (b) Symptoms of cauda equina compression (e.g., acute neurologic sphincteric dysfunction, paraparesis, or saddle anesthesia).
10. Imaging tests include any of the following: CT, myelography, or MRI.

Appropriateness Scale								
1	2	3	4	5	6	7	8	9
1 = extremely inappropriate								
5 = equivocal (neither clearly appropriate nor clearly inappropriate)								
9 = extremely appropriate								

Clinical Presentation:

I. Spinal manipulation is indicated in patients with acute low back pain, no neurologic findings; no sciatic nerve irritation, and:

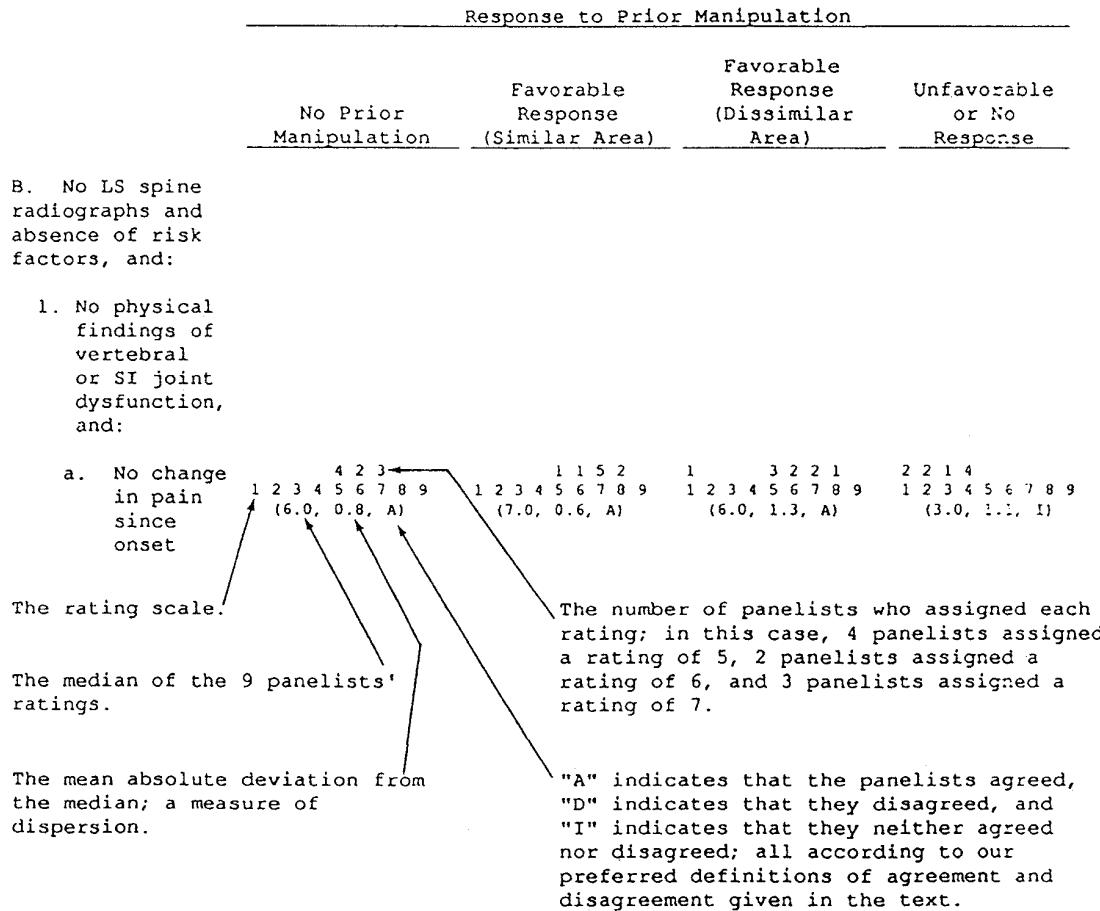


Figure 4—A Key to Reading the Final Results of Appropriateness Ratings for Each Indication for Spinal Manipulation

11. Joint dysfunction is defined as decreased or aberrant segmental or sectional joint mobility excluding hypermobility but including hypertonic contraction of the paraspinal muscles.
12. Prior manipulation for acute low-back pain refers to manipulation for a *prior* episode of low-back pain.
13. Prior manipulation for subacute and chronic low-back pain refers to manipulation for *this* episode of low-back pain.
14. With respect to subacute and chronic back pain, no prior manipulative treatments means no treatment or nonmanipulative therapy including mobilization, physical therapy, bedrest, and analgesics.
15. Similar area means prior manipulation in the same anatomic area (e.g., lumbosacral vertebral spine, sacroiliac joint).
16. Dissimilar area means prior manipulation in an anatomically different area (e.g., cervical spine, or prior sacroiliac manipulation with current lumbosacral vertebral dysfunction).
17. Favorable response to manipulation means an improvement in symptoms; no response or unfavorable response to manipulation means equivocal or no improvement in symptoms or worsening of symptoms.
18. LS means lumbosacral.
19. HNP means herniated (not bulging) nucleus pulposus.
20. SI means sacroiliac.
21. Spinal stenosis means central spinal stenosis.
22. Radiographic contraindications to manipulation include, but are not limited to:
 - (a) Neoplastic disease of skeletal or soft tissue of the spine
 - (b) Certain bone diseases including infections (such as discitis, osteomyelitis, tuberculosis), Paget's disease, or severe osteoporosis.
 - (c) Active inflammatory arthritis (ankylosing spondylitis, rheumatoid arthritis)
 - (d) Septic arthritis
 - (e) Acute or unhealed fracture.
23. Factors for possible contraindications for spinal manipulation prior to radiography are:
 - (a) Patient over the age of 50
 - (b) History of recent significant trauma
 - (c) Presence of fever greater than 100° F
 - (d) History of prolonged corticosteroid use
 - (e) Unexplained weight loss
 - (f) History of cancer

- (g) History of serious systemic inflammatory arthritides, vasculitides
 - (h) Endocrinopathies that affect calcium metabolism.
24. Biomechanical stress means postural, life-style, or occupational factors associated with chronic low-back pain.
25. Psychosocial stress includes dysfunction, such as
- Depression requiring drug treatment
 - Alcohol or narcotic dependence
 - Recent suicide attempt
 - Severe anxiety
- as well as evidence of a stressful life situation, such as
- Bereavement
 - Occupational change
 - Chronic tension, like vocational or family dissatisfaction
 - Litigation and/or compensation.
26. Prior laminectomy defines an anatomic region from one vertebral body above to one vertebral body below the area of prior surgical procedure. Manipulation with prior laminectomy is defined as manipulation within this anatomic region. Patients considered for manipulation of anatomic areas remote from the laminectomy (as defined above) are dealt with in other chapters.

Appendix A
APPROPRIATENESS RATINGS FOR ACUTE LOW-BACK PAIN

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		RESPONSE TO PRIOR MANIPULATION									
		No Prior Manipulation		Favorable Response (Similar Area)		Favorable Response (Dissimilar Area)					
		Unfavorable or No Response									
Chapter I SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH ACUTE LOW BACK PAIN, NO NEUROLOGIC FINDINGS, NO SCIATIC NERVE IRRITATION, AND:											
A.	NO LS SPINE RADIOGRAPHS AND PRESENCE OF RISK FACTORS FOR CONTRAINDICATIONS	7 (1.0, 0.7, A)	1 (3.0, 1.2, I)	3 (2.0, 1.0, A)	4 (2.0, 1.0, A)	5 (2.0, 0.9, A)	6 (1.0, 0.3, A)				
B.	NO LS SPINE RADIOGRAPHS AND ABSENCE OF RISK FACTORS, AND:										
1.	No Physical findings of vertebral or SI joint dysfunction, and:	4 (2.0, 0.8, A)	2 (2.0, 0.8, A)	3 (2.0, 0.8, A)	2 (2.0, 0.8, A)	4 (2.0, 0.8, A)	5 (2.0, 0.8, A)				
a.	No change in pain since onset	1 (2.0, 0.8, A)	1 (2.0, 0.8, A)	1 (2.0, 0.8, A)	1 (2.0, 0.8, A)	1 (2.0, 0.8, A)	1 (2.0, 0.8, A)				
b.	Pain worse since onset	4 (2.0, 0.8, A)	2 (2.0, 0.8, A)	3 (2.0, 0.8, A)	2 (2.0, 0.8, A)	4 (2.0, 0.8, A)	6 (1.0, 0.3, A)				
c.	Pain better since onset	4 (2.0, 0.9, A)	1 (2.0, 0.9, A)	3 (2.0, 0.9, A)	1 (2.0, 0.9, A)	4 (2.0, 0.9, A)	5 (2.0, 0.9, A)				
2.	Physical findings of vertebral Joint dysfunction, and:	1 (8.0, 0.9, A)	3 (8.0, 0.7, A)	3 (8.0, 0.7, A)	2 (7.0, 0.9, A)	3 (7.0, 0.9, A)	4 (6.0, 1.2, I)				
b.	Pain worse since onset	1 (7.0, 1.0, I)	2 (7.0, 0.9, I)	2 (7.0, 0.9, I)	2 (7.0, 1.0, I)	3 (7.0, 1.0, I)	2 (5.0, 1.3, D)				
c.	Pain better since onset	1 (8.0, 0.6, A)	4 (9.0, 0.4, A)	3 (9.0, 0.4, A)	4 (8.0, 0.6, A)	4 (8.0, 0.6, A)	3 (6.0, 1.2, I)				
3.	Physical findings of SI joint dysfunction, and:	1 (8.0, 0.7, A)	4 (8.0, 0.4, A)	3 (8.0, 0.4, A)	5 (8.0, 0.7, A)	3 (8.0, 0.7, A)	2 (6.0, 1.1, A)				
a.	No change in pain since onset	1 (6.0, 1.1, I)	1 (7.0, 0.9, I)	1 (7.0, 0.9, I)	2 (7.0, 0.9, I)	3 (7.0, 0.9, I)	3 (5.0, 1.2, D)				
b.	Pain worse since onset	1 (8.0, 0.4, A)	2 (8.0, 0.4, A)	2 (8.0, 0.4, A)	5 (8.0, 0.4, A)	5 (8.0, 0.4, A)	2 (6.0, 1.1, I)				

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 1
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
NO NEUROLOGIC FINDINGS, NO SCIATIC
NERVE IRRITATION, AND:
AND:

		RESPONSE TO PRIOR MANIPULATION					
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response		
C. LS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS, NO IMAGING STUDIES DONE, OR IMAGING STUDIES SHOW NO HNP AND NO SPINAL STENOSIS, AND:							

1. No physical findings of vertebral or SI joint dysfunction, and:
- No change in pain since onset

1 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	3 2 3 4 5 6 7 8 9 (3.0, 1.9, I)	1 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	3 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	3 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	5 4 (1.0, 1.1, I)
1 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	3 2 3 4 5 6 7 8 9 (3.0, 1.8, I)	1 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	3 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	3 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (3.0, 1.3, I)	5 4 (1.0, 0.9, A)
1 2 3 4 5 6 7 8 9 (3.0, 1.4, I)	3 2 3 4 5 6 7 8 9 (3.0, 1.9, I)	1 2 3 4 5 6 7 8 9 (3.0, 1.9, I)	3 2 3 4 5 6 7 8 9 (3.0, 1.9, I)	1 2 3 4 5 6 7 8 9 (3.0, 1.9, I)	3 2 3 4 5 6 7 8 9 (3.0, 1.9, I)	1 2 3 4 5 6 7 8 9 (3.0, 1.9, I)	5 3 1 (1.0, 1.0, A)
1 2 3 4 5 6 7 8 9 (9.0, 0.6, A)	3 2 3 4 5 6 7 8 9 (9.0, 0.4, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	3 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	3 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	5 3 1 (7.0, 0.8, A)
1 2 3 4 5 6 7 8 9 (8.0, 0.7, A)	3 2 3 4 5 6 7 8 9 (8.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	3 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	3 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	5 3 1 (6.0, 1.0, A)
1 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	3 2 3 4 5 6 7 8 9 (9.0, 0.2, A)	1 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	3 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	1 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	3 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	1 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	5 3 1 (8.0, 0.9, I)
1 2 3 4 5 6 7 8 9 (9.0, 0.6, A)	3 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.4, A)	3 2 3 4 5 6 7 8 9 (8.0, 0.4, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.4, A)	3 2 3 4 5 6 7 8 9 (8.0, 0.4, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.4, A)	5 3 1 (7.0, 0.7, A)
1 2 3 4 5 6 7 8 9 (8.0, 0.7, A)	3 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	3 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	3 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	5 3 1 (6.0, 0.9, A)
1 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	3 2 3 4 5 6 7 8 9 (9.0, 0.1, A)	1 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	3 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	1 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	3 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	1 2 3 4 5 6 7 8 9 (9.0, 0.3, A)	5 3 1 (8.0, 0.8, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate.

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CHAPTER 1
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN
NO NEUROLOGIC FINDINGS, NO SCIATIC
NERVE IRRITATION, AND:

D. LS SPINE RADIOPHGRAPS SHOW NO
CONTRAINICATIONS. IMAGING STUDIES
SHOW POSTEROLATERAL HNP WITH NO
FREE FRAGMENT, NO SPINAL STENOSIS
AND NO CENTRAL HNP, AND:

1. No physical findings of vertebral or SI joint dysfunction, and:

a. No change in pain since onset

		RESPONSE TO PRIOR MANIPULATION						
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response			
		5 1 2 3 4 5 6 7 8 9	3 3 2 3 4 5 6 7 8 9	5 1 1 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	(77- 80)		
(1.0, 1.7, I)		(2.0, 1.7, I)	(1.0, 1.7, I)	(1.0, 1.6, I)	(1.0, 1.0, I)			

		RESPONSE TO PRIOR MANIPULATION						
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response			
		5 1 2 3 4 5 6 7 8 9	4 2 2 3 3 4 5 6 7 8 9	5 1 1 1 2 3 4 5 6 7 8 9	6 1 1 1 2 3 4 5 6 7 8 9	(81- 84)		
(1.0, 1.6, I)		(2.0, 1.7, I)	(1.0, 1.7, I)	(1.0, 1.4, I)	(1.0, 0.9, I)			

b. Pain worse since onset

		RESPONSE TO PRIOR MANIPULATION						
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response			
		4 2 1 1 1 2 3 4 5 6 7 8 9	4 2 1 1 2 3 4 5 6 7 8 9	4 2 1 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	(85- 88)		
(2.0, 1.8, I)		(2.0, 1.8, D)	(2.0, 1.8, D)	(2.0, 1.7, I)	(1.0, 1.0, I)			

c. Pain better since onset

		RESPONSE TO PRIOR MANIPULATION						
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response			
		1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	(89- 92)		
(8.0, 0.8, A)		(8.0, 0.7, A)	(8.0, 0.7, A)	(8.0, 0.9, A)	(6.0, 0.8, A)			

d. Physical findings of vertebral joint dysfunction, and:

		RESPONSE TO PRIOR MANIPULATION						
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response			
		1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	(93- 96)		
(7.0, 0.8, A)		(7.0, 0.8, A)	(7.0, 0.8, A)	(7.0, 0.7, A)	(5.0, 0.9, A)			

e. Physical findings of SI joint dysfunction, and:

		RESPONSE TO PRIOR MANIPULATION						
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response			
		1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	(97-100)		
(8.0, 0.7, A)		(8.0, 0.7, A)	(8.0, 0.7, A)	(8.0, 0.8, A)	(6.0, 0.9, A)			

f. Physical findings of SI joint dysfunction, and:

		RESPONSE TO PRIOR MANIPULATION						
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response			
		1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	(101-104)		
(8.0, 0.9, I)		(8.0, 0.7, A)	(8.0, 0.7, A)	(8.0, 0.8, A)	(6.0, 1.0, I)			

g. Pain worse since onset

		RESPONSE TO PRIOR MANIPULATION						
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response			
		1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	(105-108)		
(7.0, 1.0, A)		(7.0, 0.8, A)	(7.0, 0.8, A)	(7.0, 0.9, A)	(5.0, 1.1, I)			

h. Pain better since onset

		RESPONSE TO PRIOR MANIPULATION						
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response			
		1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	(109-112)		
(8.0, 0.7, A)		(8.0, 0.6, A)	(8.0, 0.6, A)	(8.0, 0.6, A)	(6.0, 0.9, I)			

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

May 1991

CHAPTER 1
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
NO NEUROLOGIC FINDINGS, NO SCIATIC
NERVE IRRITATION, AND:

E. LS SPINE RADIOGRAPHS SHOW NO
CONTRAINdications AND IMAGING
STUDIES SHOW CENTRAL HNP OR SPINAL
STENOSIS, OR FREE FRAGMENT, AND:

1. No physical findings of vertebral or SI joint dysfunction, and:

a. No change in pain since onset

		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Unfavorable Response (Dissimilar Area)	No Response
1	2	3	4	5	6
7	1	2	3	4	5
1	0.	0.	0.	1.0.	1.0.
A	A	A	A	A	A

b. Pain worse since onset

		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Unfavorable Response (Dissimilar Area)	No Response
1	2	3	4	5	6
7	1	2	3	4	5
1	0.	0.	0.	0.9.	1
A	A	A	A	A	A

c. Pain better since onset

		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Unfavorable Response (Dissimilar Area)	No Response
1	2	3	4	5	6
5	2	1	2	3	4
1	0.	0.	1.2.	1.2.	1.2.
A	A	A	A	A	A

2. Physical findings of vertebral joint dysfunction, and:

a. No change in pain since onset

		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Unfavorable Response (Dissimilar Area)	No Response
1	2	3	4	5	6
7	1	2	3	4	5
1	0.	0.	0.9.	1	1
A	A	A	A	A	A

b. Pain worse since onset

		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Unfavorable Response (Dissimilar Area)	No Response
1	2	3	4	5	6
1	2	3	4	5	6
1	2	3	4	5	6
5	0.	1.2.	1.2.	1.2.	1.2.
A	A	A	A	A	A

c. Pain better since onset

		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Unfavorable Response (Dissimilar Area)	No Response
1	2	3	4	5	6
1	2	3	4	5	6
1	2	3	4	5	6
7	0.	0.9.	1	1	1
A	A	A	A	A	A

3. Physical findings of SI joint dysfunction, and:

a. No change in pain since onset

		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Unfavorable Response (Dissimilar Area)	No Response
1	2	3	4	5	6
1	2	3	4	5	6
1	2	3	4	5	6
7	0.	0.9.	1	1	1
A	A	A	A	A	A

b. Pain worse since onset

		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Unfavorable Response (Dissimilar Area)	No Response
1	2	3	4	5	6
1	2	3	4	5	6
1	2	3	4	5	6
5	0.	1.1.	1.2.	1.2.	1.2.
A	A	A	A	A	A

c. Pain better since onset

		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Unfavorable Response (Dissimilar Area)	No Response
1	2	3	4	5	6
1	2	3	4	5	6
1	2	3	4	5	6
7	0.	0.9.	1	1	1
A	A	A	A	A	A

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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CHAPTER 2
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
NO NEUROLOGIC FINDINGS, BUT WITH
SCIATIC NERVE IRRITATION, AND:

		RESPONSE TO PRIOR MANIPULATION					
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response		
A. NO LS RADIOPHGRAPS AND PRESENCE OF RISK FACTORS FOR CONTRAINDICATIONS		7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	4 2 1 1 1 6 7 8 9 (2.0, 1.4, I)	6 1 2 3 4 5 6 7 8 9 (1.0, 1.0, I)	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	8 1 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	(5- 8)
B. NO LS RADIOPHGRAPS AND ABSENCE OF RISK FACTORS, AND:							
1. No physical findings of vertebral or SI joint dysfunction, and:		4 4 1 2 3 4 5 6 7 8 9 (2.0, 0.6, A)	3 5 1 2 3 4 5 6 7 8 9 (2.0, 0.4, A)	4 4 1 2 3 4 5 6 7 8 9 (2.0, 0.6, A)	8 1 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)		
a. No change in pain since onset		1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)	4 4 1 2 3 4 5 6 7 8 9 (2.0, 0.6, A)	6 2 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	(9- 12)	
b. Pain worse since onset		4 4 1 2 3 4 5 6 7 8 9 (2.0, 0.6, A)	3 4 2 2 3 4 5 6 7 8 9 (2.0, 0.6, A)	5 2 2 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	6 3 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)		(13- 16)
c. Pain better since onset		1 2 3 4 5 6 7 8 9 (2.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (2.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)		
2. Physical findings of vertebral joint dysfunction, and:		1 2 3 4 5 6 7 8 9 (8.0, 1.1, I)	2 2 5 2 3 4 5 6 7 8 9 (8.0, 1.0, I)	1 2 3 2 3 4 5 6 7 8 9 (7.0, 1.0, I)	1 3 1 4 2 3 4 5 6 7 8 9 (7.0, 1.0, A)	1 1 2 4 1 2 3 4 5 6 7 8 9 (6.0, 1.1, A)	(17- 20)
a. No change in pain since onset		1 2 3 4 5 6 7 8 9 (7.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (8.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, I)	1 3 2 3 4 5 6 7 8 9 (5.0, 1.6, I)		(21- 24)
b. Pain worse since onset		1 2 3 4 5 6 7 8 9 (8.0, 1.0, I)	1 2 3 2 3 4 5 6 7 8 9 (8.0, 0.9, A)	1 2 3 2 3 4 5 6 7 8 9 (7.0, 0.7, A)	2 3 4 5 6 7 8 9 (6.0, 1.2, D)		
c. Pain better since onset							
3. Physical findings of SI joint dysfunction, and:		1 2 3 4 5 6 7 8 9 (8.0, 1.2, I)	3 1 5 2 3 4 5 6 7 8 9 (8.0, 1.1, I)	1 2 3 4 5 6 7 8 9 (7.0, 1.1, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.2, A)		(25- 28)
a. No change in pain since onset		1 2 3 4 5 6 7 8 9 (7.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (8.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (7.0, 1.4, I)	1 3 4 5 6 7 8 9 (6.0, 1.7, I)		(33- 36)
b. Pain worse since onset		1 2 3 4 5 6 7 8 9 (8.0, 1.1, I)	1 2 3 4 5 6 7 8 9 (8.0, 1.0, I)	1 2 3 4 5 6 7 8 9 (7.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.2, I)		
c. Pain better since onset							

Inappropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

May 1991

Chapter 2
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
NO NEUROLOGIC FINDINGS, BUT WITH
SCIATIC NERVE IRRITATION, AND:

C. LS SPINE RADIOGRAPHS SHOW NO
CONTRAINdicATIONS, NO IMAGING
STUDIES DONE, OR IMAGING STUDIES
SHOW NO HNP AND NO SPINAL STENOSIS,
AND:

1. No physical findings of vertebral
or SI joint dysfunction, and:

- a. No change in pain since onset 3 3 1 2 3 4 5 6 7 8 9 3 2 2 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 6 1 2 3 4 5 6 7 8 9 (41- 44)
 (2.0, 1.1, I) (2.0, 1.2, I) (2.0, 1.1, I) (2.0, 1.1, I)
 - b. Pain worse since onset 4 3 1 2 3 4 5 6 7 8 9 4 1 2 3 4 5 6 7 8 9 4 3 1 2 3 4 5 6 7 8 9 6 1 2 3 4 5 6 7 8 9 (45- 48)
 (2.0, 1.0, I) (2.0, 1.3, I) (2.0, 1.0, I) (2.0, 1.0, I)
 - c. Pain better since onset 3 3 1 1 2 3 4 5 6 7 8 9 3 2 2 1 2 3 4 5 6 7 8 9 3 3 1 1 2 3 4 5 6 7 8 9 6 1 2 3 4 5 6 7 8 9 (49- 52)
 (2.0, 1.2, I) (2.0, 1.3, I) (2.0, 1.2, I) (2.0, 1.2, I)
- 2. Physical findings of vertebral**
joint dysfunction, and:
- a. No change in pain since onset 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (53- 56)
 (8.0, 0.7, A) (8.0, 0.4, A) (8.0, 0.7, A) (8.0, 0.7, A)
 - b. Pain worse since onset 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (57- 60)
 (8.0, 0.6, A) (8.0, 0.6, A) (8.0, 0.7, A) (8.0, 0.7, A)
 - c. Pain better since onset 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (61- 64)
 (8.0, 0.4, A) (8.0, 0.2, A) (8.0, 0.4, A) (8.0, 0.4, A)
- 3. Physical findings of SI joint**
dysfunction, and:
- a. No change in pain since onset 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (65- 68)
 (8.0, 0.6, A) (8.0, 0.6, A) (8.0, 0.6, A) (8.0, 0.6, A)
 - b. Pain worse since onset 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (69- 72)
 (8.0, 0.6, A) (8.0, 0.7, A) (8.0, 0.7, A) (8.0, 0.7, A)
 - c. Pain better since onset 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (73- 76)
 (8.0, 0.3, A) (8.0, 0.3, A) (8.0, 0.3, A) (8.0, 0.3, A)

RESPONSE TO PRIOR MANIPULATION

	No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response
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Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 2
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
NO NEUROLOGIC FINDINGS, BUT WITH
SCIATIC NERVE IRRITATION, AND:

- D. LS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS, IMAGING STUDIES SHOW POSTEROLATERAL HNP WITH NO FREE FRAGMENT, NO SPINAL STENOSIS AND NO CENTRAL HNP, AND:
1. No physical findings of vertebral or SI joint dysfunction, and:
 - a. No change in pain since onset
 - b. Pain worse since onset
 - c. Pain better since onset
 2. Physical findings of vertebral joint dysfunction, and:
 - a. No change in pain since onset
 - b. Pain worse since onset
 - c. Pain better since onset
 3. Physical findings of SI joint dysfunction, and:
 - a. No change in pain since onset
 - b. Pain worse since onset
 - c. Pain better since onset

RESPONSE TO PRIOR MANIPULATION

Manipulation	No Prior Response (Similar Area)	Favorable Response (Slimilar Area)	Unfavorable or No Response (Dissimilar Area)
1 (1.0, 1.1, I)	5 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.4, I)	5 2 1 1 2 3 4 5 6 7 8 9 (1.0, 1.2, I)	6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)
6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)	5 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.4, I)	5 2 1 1 2 3 4 5 6 7 8 9 (1.0, 1.2, I)	6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)
6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.2, I)	5 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.6, I)	5 2 1 1 2 3 4 5 6 7 8 9 (1.0, 1.3, I)	6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)
1 2 3 4 5 6 7 8 9 (8.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.2, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.2, A)

Manipulation	No Prior Response (Similar Area)	Favorable Response (Slimilar Area)	Unfavorable or No Response (Dissimilar Area)
1 (1.0, 1.1, I)	5 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.4, I)	5 2 1 1 2 3 4 5 6 7 8 9 (1.0, 1.2, I)	6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)
6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)	5 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.4, I)	5 2 1 1 2 3 4 5 6 7 8 9 (1.0, 1.2, I)	6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)
6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.2, I)	5 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.6, I)	5 2 1 1 2 3 4 5 6 7 8 9 (1.0, 1.3, I)	6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)
1 2 3 4 5 6 7 8 9 (8.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.2, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.2, A)

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Chapter 2
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
NO NEUROLOGIC FINDINGS, BUT WITH
SCIATIC NERVE IRRITATION, AND:

		RESPONSE TO PRIOR MANIPULATION									
		No Prior Manipulation					Favorable Response (Similar Area)				
E. LS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS AND IMAGING STUDIES SHOW CENTRAL HNP OR SPINAL STENOSIS, OR FREE FRAGMENT, AND:											
1. No physical findings of vertebral or SI joint dysfunction, and:		6	2	3	4	5	6	7	8	9	8
a. No change in pain since onset	(1.0, 0.7, A)	1	2	3	4	5	6	7	8	9	1
b. Pain worse since onset	(1.0, 0.7, A)	6	2	3	4	5	6	7	8	9	8
c. Pain better since onset	(1.0, 0.9, A)	5	2	1	3	4	5	6	7	8	9
2. Physical findings of vertebral joint dysfunction, and:		1	2	3	4	5	6	7	8	9	7
a. No change in pain since onset	(6.0, 1.2, A)	1	2	3	4	5	6	7	8	9	1
b. Pain worse since onset	(6.0, 1.4, D)	1	2	3	4	5	6	7	8	9	1
c. Pain better since onset	(6.0, 1.0, A)	1	2	3	4	5	6	7	8	9	1
3. Physical findings of SI joint dysfunction, and:		1	1	1	2	2	2	3	2	1	1
a. No change in pain since onset	(6.0, 1.3, I)	1	2	3	4	5	6	7	8	9	1
b. Pain worse since onset	(6.0, 1.4, D)	1	2	3	4	5	6	7	8	9	1
c. Pain better since onset	(7.0, 1.1, I)	1	2	3	4	5	6	7	8	9	1

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		RESPONSE TO PRIOR MANIPULATION							
		No Prior Manipulation		Favorable Response (Similar Area)		Unfavorable or No Response (Dissimilar Area)			
A. NO LS SPINE RADIOGRAPHS									
1. Absence of risk factors for contraindications	(5.0, 1.6, D)	2 1 1 2 3 4 5 6 7 8 9 (1.0, 0.8, A)	3 3 1 2 3 4 5 6 7 8 9 (6.0, 1.6, D)	1 1 1 1 1 4 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)	2 2 2 1 4 1 2 3 4 5 6 7 8 9 (1.0, 0.9, I)	1 1 5 2 4 1 2 3 4 5 6 7 8 9 (6.0, 1.8, D)	2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (3.0, 0.8, I)	1 1 5 2 4 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	1 1 5 2 4 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)
2. Presence of risk factors for contraindications	(1.0, 0.6, A)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	5 1 2 1 1 2 3 4 5 6 7 8 9 (1.0, 0.9, A)	5 1 2 1 1 2 3 4 5 6 7 8 9 (1.0, 1.0, A)	6 2 1 1 1 2 3 4 5 6 7 8 9 (1.0, 1.0, A)	6 2 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	6 2 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	6 2 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	6 2 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)
B. LS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS, NO IMAGING STUDIES DONE, AND:									
1. No physical findings of vertebral or SI joint dysfunction, and:	(1.0, 0.8, A)	6 2 1 1 2 3 4 5 6 7 8 9 (1.0, 0.8, A)	6 2 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)	6 1 2 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)	6 1 2 1 1 2 3 4 5 6 7 8 9 (1.0, 0.9, I)	7 2 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	7 2 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	7 2 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	7 2 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)
a. No change in pain since onset	(1.0, 0.9, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 0.9, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 0.9, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 0.9, I)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)
b. Pain worse since onset	(1.0, 1.1, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 1.2, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 1.2, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 1.0, I)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)
c. Pain better since onset	(1.0, 1.2, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 1.2, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 1.2, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 1.0, I)	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 1.0, I)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)
2. Physical findings of vertebral joint dysfunction, and:	(7.0, 1.2, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.2, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.1, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.2, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.2, A)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, D)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, D)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, D)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, D)
a. No change in pain since onset	(7.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.1, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.1, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.1, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.1, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.1, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.1, I)
b. Pain worse since onset	(8.0, 1.1, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.1, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, A)
c. Pain better since onset	(8.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, A)

Inappropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

CHAPTER 3
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
MINOR NEUROLOGIC FINDINGS, NO
SACRATIC NERVE IRRITATION, AND:

		RESPONSE TO PRIOR MANIPULATION									
		No Prior Manipulation					Favorable Response (Similar Area)				
3. Physical findings of SI joint dysfunction, and:											
a. No change in pain since onset	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
	(7.0, 1.2, A)	(7.0, 1.1, A)	(7.0, 1.1, A)	(7.0, 1.1, A)	(7.0, 1.1, A)	(7.0, 1.1, A)	(7.0, 1.1, A)	(7.0, 1.1, A)	(7.0, 1.1, A)	(7.0, 1.1, A)	(7.0, 1.1, A)
b. Pain worse since onset	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
	(7.0, 1.1, A)	(7.0, 1.0, A)	(7.0, 1.0, A)	(7.0, 1.0, A)	(7.0, 1.0, A)	(7.0, 1.0, A)	(7.0, 1.0, A)	(7.0, 1.0, A)	(7.0, 1.0, A)	(7.0, 1.0, A)	(7.0, 1.0, A)
c. Pain better since onset	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
	(8.0, 1.2, I)	(8.0, 1.1, A)	(8.0, 1.1, A)	(8.0, 1.1, A)	(8.0, 1.1, A)	(8.0, 1.1, A)	(8.0, 1.1, A)	(8.0, 1.1, A)	(8.0, 1.1, A)	(8.0, 1.1, A)	(8.0, 1.1, A)
c. LS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS, IMAGING STUDIES SHOW NO HNP AND NO SPINAL STENOSIS, AND:											
1. No physical findings of vertebral or SI joint dysfunction, and:											
a. No change in pain since onset	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9
	(1.0, 1.0, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)
b. Pain worse since onset	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9
	(1.0, 1.0, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)	(1.0, 1.1, I)
c. Pain better since onset	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9	6 1 2 3 4 5 6 7 8 9
	(1.0, 1.1, I)	(1.0, 1.2, I)	(1.0, 1.2, I)	(1.0, 1.2, I)	(1.0, 1.2, I)	(1.0, 1.2, I)	(1.0, 1.2, I)	(1.0, 1.2, I)	(1.0, 1.2, I)	(1.0, 1.2, I)	(1.0, 1.2, I)
2. Physical findings of vertebral joint dysfunction, and:											
a. No change in pain since onset	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
	(8.0, 0.6, A)	(8.0, 0.4, A)	(8.0, 0.4, A)	(8.0, 0.4, A)	(8.0, 0.4, A)	(8.0, 0.4, A)	(8.0, 0.4, A)	(8.0, 0.4, A)	(8.0, 0.4, A)	(8.0, 0.4, A)	(8.0, 0.4, A)
b. Pain worse since onset	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
	(7.0, 0.6, A)	(7.0, 0.4, A)	(7.0, 0.4, A)	(7.0, 0.4, A)	(7.0, 0.4, A)	(7.0, 0.4, A)	(7.0, 0.4, A)	(7.0, 0.4, A)	(7.0, 0.4, A)	(7.0, 0.4, A)	(7.0, 0.4, A)
c. Pain better since onset	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
	(8.0, 0.3, A)	(8.0, 0.2, A)	(8.0, 0.2, A)	(8.0, 0.2, A)	(8.0, 0.2, A)	(8.0, 0.2, A)	(8.0, 0.2, A)	(8.0, 0.2, A)	(8.0, 0.2, A)	(8.0, 0.2, A)	(8.0, 0.2, A)

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Chapter 3
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
MINOR NEUROLOGIC FINDINGS, NO
SCIATIC NERVE IRRITATION, AND:

		RESPONSE TO PRIOR MANIPULATION					
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response	(Dissimilar Area)	
3. Physical findings of SI joint dysfunction, and:							
a. No change in pain since onset	1 (8.0, 0.4, A)	2 3 4 5 6 7 8 9 (8.0, 0.4, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.4, A)	3 5 1 (8.0, 0.4, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.4, A)	3 5 1 (8.0, 0.4, A)	2 2 2 3 (69- 72)
b. Pain worse since onset	1 (8.0, 0.7, A)	2 3 4 5 6 7 8 9 (8.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.7, A)	1 3 4 1 (8.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.7, A)	1 3 4 1 (8.0, 0.7, A)	2 2 2 2 (73- 76)
c. Pain better since onset	1 (8.0, 0.6, A)	2 3 4 5 6 7 8 9 (8.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	2 4 3 (8.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	2 4 3 (8.0, 0.6, A)	1 3 2 1 2 (77- 80)
D. IS SPINE RADIOCOPIES SHOW NO CONTRAINDICATIONS AND IMAGING STUDIES SHOW POSTEROLATERAL HNP, WITH NO FREE FRAGMENT, AND NO SPINAL STENOSIS, AND NO CENTRAL HNP, AND:							
1. No physical findings of vertebral or SI joint dysfunction, and:	6 (1.0, 1.1, R)	1 2 3 4 5 6 7 8 9 (1.0, 1.1, R)	6 1 2 3 4 5 6 7 8 9 (1.0, 1.4, R)	6 1 2 3 4 5 6 7 8 9 (1.0, 1.4, R)	6 1 2 3 4 5 6 7 8 9 (1.0, 1.3, R)	7 1 2 3 4 5 6 7 8 9 (1.0, 1.0, R)	1 1 2 3 4 5 6 7 8 9 (81- 84)
b. Pain worse since onset	6 (1.0, 1.1, R)	1 2 3 4 5 6 7 8 9 (1.0, 1.1, R)	6 1 2 3 4 5 6 7 8 9 (1.0, 1.4, R)	6 1 2 3 4 5 6 7 8 9 (1.0, 1.2, R)	6 1 2 3 4 5 6 7 8 9 (1.0, 1.2, R)	7 1 2 3 4 5 6 7 8 9 (1.0, 0.9, R)	2 3 4 5 6 7 8 9 (85- 88)
c. Pain better since onset	6 (1.0, 1.2, R)	1 2 3 4 5 6 7 8 9 (1.0, 1.2, R)	6 1 2 3 4 5 6 7 8 9 (1.0, 1.6, R)	6 1 2 3 4 5 6 7 8 9 (1.0, 1.3, R)	6 1 2 3 4 5 6 7 8 9 (1.0, 1.3, R)	7 1 2 3 4 5 6 7 8 9 (1.0, 1.0, R)	1 1 2 3 4 5 6 7 8 9 (89- 92)
2. Physical findings of vertebral joint dysfunction, and:	1 (7.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (7.0, 1.6, R)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (4.0, 1.8, D)	1 1 2 3 4 5 6 7 8 9 (93- 96)
a. No change in pain since onset	1 (6.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, R)	2 1 2 3 1 (4.0, 1.8, R)	1 2 3 4 5 6 7 8 9 (97-100)
b. Pain worse since onset	1 (7.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (8.0, 1.6, R)	1 2 3 4 5 6 7 8 9 (7.0, 1.4, R)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, R)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, R)	1 2 3 4 5 6 7 8 9 (101-104)
c. Pain better since onset	1 (7.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, R)	1 2 3 4 5 6 7 8 9 (8.0, 1.6, R)	1 2 3 4 5 6 7 8 9 (7.0, 1.4, R)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, R)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, R)	1 2 3 4 5 6 7 8 9 (101-104)

Appropriateness scales: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 3
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
MINOR NEUROLOGIC FINDINGS, NO
SCIATIC NERVE IRRITATION, AND:

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		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response
3. Physical findings of SI Joint dysfunction, and:					
a. No change in pain since onset	1 2 3 4 5 6 7 8 9 (7.0, 1.7, D)	1 2 3 4 5 6 7 8 9 (8.0, 1.8, D)	1 2 3 4 5 6 7 8 9 (7.0, 1.7, D)	1 2 3 4 5 6 7 8 9 (4.0, 2.0, D)	1 2 3 4 5 6 7 8 9 (105-108)
b. Pain worse since onset	1 2 3 4 5 6 7 8 9 (6.0, 1.7, D)	1 2 3 4 5 6 7 8 9 (7.0, 1.7, D)	1 2 3 4 5 6 7 8 9 (6.0, 1.7, D)	1 2 3 4 5 6 7 8 9 (4.0, 2.1, D)	1 2 3 4 5 6 7 8 9 (109-112)
c. Pain better since onset	1 2 3 4 5 6 7 8 9 (8.0, 1.7, I)	1 2 3 4 5 6 7 8 9 (8.0, 1.9, I)	1 2 3 4 5 6 7 8 9 (7.0, 1.8, I)	1 2 3 4 5 6 7 8 9 (5.0, 2.1, D)	1 2 3 4 5 6 7 8 9 (113-116)
E. IS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS AND IMAGING STUDIES SHOW CENTRAL HNP OR SPINAL STENOSIS OR FREE FRAGMENT, AND:					
1. No physical findings of vertebral or SI joint dysfunction, and:					
a. No change in pain since onset	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
b. Pain worse since onset	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
c. Pain better since onset	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	7 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
2. Physical findings of vertebral joint dysfunction, and:					
a. No change in pain since onset	1 2 3 4 5 6 7 8 9 (6.0, 1.1, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.2, A)	1 2 3 4 5 6 7 8 9 (5.0, 1.1, A)	1 2 3 4 5 6 7 8 9 (4.0, 1.2, I)	1 2 3 4 5 6 7 8 9 (129-132)
b. Pain worse since onset	1 2 3 4 5 6 7 8 9 (6.0, 1.2, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (5.0, 1.2, I)	1 2 3 4 5 6 7 8 9 (4.0, 1.2, I)	1 2 3 4 5 6 7 8 9 (133-136)
c. Pain better since onset	1 2 3 4 5 6 7 8 9 (6.0, 1.0, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.2, A)	1 2 3 4 5 6 7 8 9 (5.0, 1.2, A)	1 2 3 4 5 6 7 8 9 (137-140)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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		RESPONSE TO PRIOR MANIPULATION							
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response (Area)				
3.	Physical findings of SI joint dysfunction, and:								
a.	No change in pain since onset	1 2 3 4 5 6 7 8 9 (5.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (4.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (4.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (4.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (4.0, 1.4, I)
b.	Pain worse since onset	1 2 3 4 5 6 7 8 9 (5.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, D)	1 2 3 4 5 6 7 8 9 (6.0, 1.2, D)	1 2 3 4 5 6 7 8 9 (6.0, 1.2, D)	1 2 3 4 5 6 7 8 9 (4.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (4.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (4.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (4.0, 1.4, I)
c.	Pain better since onset	1 2 3 4 5 6 7 8 9 (6.0, 1.2, I)	1 2 3 4 5 6 7 8 9 (7.0, 1.6, I)	1 2 3 4 5 6 7 8 9 (7.0, 1.6, I)	1 2 3 4 5 6 7 8 9 (7.0, 1.6, I)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, I)	1 2 3 4 5 6 7 8 9 (5.0, 1.4, I)

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Chapter 4
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
MINOR NEUROLOGIC FINDINGS WITH
SCIATIC NERVE IRRITATION, AND:

		RESPONSE TO PRIOR MANIPULATION							
		No Prior Manipulation				Favorable Response (Similar Area)			
						Unfavorable or No Response (Dissimilar Area)			
A.	NO LS SPINE RADIOGRAPHS								
1.	Absence of risk factors for contraindications	1 (5.0, 1.7, D)	2 (5.0, 1.7, D)	3 (6.0, 1.6, D)	1 (6.0, 1.6, D)	1 (6.0, 1.8, D)	2 (6.0, 1.8, D)	1 (6.0, 1.8, D)	1 (6.0, 1.8, D)
2.	Presence of risk factors for contraindications	6 (1.0, 0.4, A)	2 (1.0, 0.4, A)	3 (1.0, 0.4, A)	4 (1.0, 0.4, A)	5 (1.0, 0.4, A)	6 (1.0, 0.4, A)	7 (1.0, 0.4, A)	8 (1.0, 0.4, A)
B.	LS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS, NO IMAGING STUDIES DONE, AND:								
1.	No physical findings of vertebral or SI joint dysfunction, and:	6 (1.0, 0.7, A)	2 (1.0, 0.7, A)	3 (1.0, 1.0, I)	4 (1.0, 1.0, I)	5 (1.0, 1.0, I)	6 (1.0, 1.0, I)	7 (1.0, 1.0, I)	8 (1.0, 1.0, I)
a.	No change in pain since onset	6 (1.0, 0.6, A)	2 (1.0, 0.6, A)	3 (1.0, 0.9, I)	4 (1.0, 0.9, I)	5 (1.0, 0.9, I)	6 (1.0, 0.9, I)	7 (1.0, 0.9, I)	8 (1.0, 0.9, I)
b.	Pain worse since onset	6 (1.0, 0.9, A)	2 (1.0, 0.9, A)	3 (1.0, 1.1, I)	4 (1.0, 1.1, I)	5 (1.0, 1.1, I)	6 (1.0, 1.1, I)	7 (1.0, 1.1, I)	8 (1.0, 1.1, I)
c.	Pain better since onset	6 (1.0, 0.9, A)	2 (1.0, 0.9, A)	3 (1.0, 1.1, I)	4 (1.0, 1.1, I)	5 (1.0, 1.1, I)	6 (1.0, 1.1, I)	7 (1.0, 1.1, I)	8 (1.0, 1.1, I)
2.	Physical findings of vertebral joint dysfunction, and:	1 (7.0, 1.1, A)	3 (7.0, 1.1, A)	2 (7.0, 1.1, A)	3 (7.0, 1.1, A)	2 (7.0, 1.1, A)	3 (7.0, 1.1, A)	2 (7.0, 1.1, A)	3 (7.0, 1.1, A)
a.	No change in pain since onset	1 (7.0, 1.1, A)	2 (7.0, 1.1, A)	3 (7.0, 1.1, A)	4 (7.0, 1.1, A)	5 (7.0, 1.1, A)	6 (7.0, 1.1, A)	7 (7.0, 1.1, A)	8 (7.0, 1.1, A)
b.	Pain worse since onset	1 (7.0, 1.1, A)	2 (7.0, 1.0, A)	3 (7.0, 1.0, A)	4 (7.0, 1.0, A)	5 (7.0, 1.0, A)	6 (7.0, 1.0, A)	7 (7.0, 1.0, A)	8 (7.0, 1.0, A)
c.	Pain better since onset	1 (7.0, 1.0, A)	2 (7.0, 1.0, A)	3 (7.0, 1.0, A)	4 (7.0, 1.0, A)	5 (7.0, 1.0, A)	6 (7.0, 1.0, A)	7 (7.0, 1.0, A)	8 (7.0, 1.0, A)

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SPINAL MANIPULATION IS INDICATED IN
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MINOR NEUROLOGIC FINDINGS WITH
SCIATIC NERVE IRRITATION, AND:

		RESPONSE TO PRIOR MANIPULATION					
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response		
3. Physical findings of SI joint dysfunction, and:							
a. No change in pain since onset	1 (7.0, 1.0, A)	2 (7.0, 1.0, A)	3 (7.0, 1.0, A)	4 (7.0, 1.0, A)	5 (7.0, 1.0, A)	6 (7.0, 1.0, A)	7 (7.0, 1.0, A)
b. Pain worse since onset	1 (7.0, 1.0, A)	2 (7.0, 0.9, A)	3 (7.0, 0.9, A)	4 (7.0, 0.9, A)	5 (7.0, 0.9, A)	6 (7.0, 0.9, A)	7 (7.0, 0.9, A)
c. Pain better since onset	1 (8.0, 1.2, A)	2 (8.0, 1.2, A)	3 (8.0, 1.2, A)	4 (8.0, 1.2, A)	5 (8.0, 1.2, A)	6 (8.0, 1.2, A)	7 (8.0, 1.2, A)
C. US SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS, IMAGING STUDIES SHOW NO HNP AND NO SPINAL STENOSIS, AND:							
1. No physical findings of vertebral or SI joint dysfunction, and:							
a. No change in pain since onset	1 (1.0, 0.9, A)	2 (1.0, 1.1, I)	3 (1.0, 1.1, I)	4 (1.0, 1.1, I)	5 (1.0, 1.1, I)	6 (1.0, 1.1, I)	7 (1.0, 0.9, I)
b. Pain worse since onset	1 (1.0, 0.9, A)	2 (1.0, 1.1, I)	3 (1.0, 1.1, I)	4 (1.0, 1.1, I)	5 (1.0, 1.1, I)	6 (1.0, 1.1, I)	7 (1.0, 0.9, I)
c. Pain better since onset	1 (1.0, 1.1, I)	2 (1.0, 1.3, I)	3 (1.0, 1.3, I)	4 (1.0, 1.3, I)	5 (1.0, 1.3, I)	6 (1.0, 1.3, I)	7 (1.0, 1.3, I)
2. Physical findings of vertebral joint dysfunction, and:							
a. No change in pain since onset	1 (7.0, 0.8, A)	2 (7.0, 0.7, A)	3 (7.0, 0.7, A)	4 (7.0, 0.7, A)	5 (7.0, 0.7, A)	6 (7.0, 0.7, A)	7 (7.0, 0.7, A)
b. Pain worse since onset	1 (7.0, 0.8, A)	2 (7.0, 0.6, A)	3 (7.0, 0.6, A)	4 (7.0, 0.6, A)	5 (7.0, 0.6, A)	6 (7.0, 0.6, A)	7 (7.0, 0.6, A)
c. Pain better since onset	1 (8.0, 0.7, A)	2 (8.0, 0.6, A)	3 (8.0, 0.6, A)	4 (8.0, 0.6, A)	5 (8.0, 0.6, A)	6 (8.0, 0.6, A)	7 (8.0, 0.6, A)

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SPINAL MANIPULATION IS INDICATED IN
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SCIATIC NERVE IRRITATION, AND:

		RESPONSE TO PRIOR MANIPULATION							
		No Prior Manipulation				Favorable Response (Similar Area)			
3.	Physical findings of SI joint dysfunction, and:								
a.	No change in pain since onset	1 (8.0, 0.8, A)	2 (8.0, 0.6, A)	2 (8.0, 0.6, A)	4 (8.0, 0.6, A)	1 (8.0, 0.6, A)	2 (8.0, 0.6, A)	5 (8.0, 0.6, A)	1 (8.0, 0.6, A)
b.	Pain worse since onset	1 (7.0, 0.9, A)	1 (7.0, 0.8, A)	1 (7.0, 0.8, A)	3 (7.0, 0.8, A)	1 (7.0, 0.8, A)	2 (7.0, 0.8, A)	3 (7.0, 0.8, A)	1 (7.0, 0.8, A)
c.	Pain better since onset	1 (8.0, 0.9, I)	2 (8.0, 0.7, A)	1 (8.0, 0.7, A)	3 (8.0, 0.7, A)	1 (8.0, 0.7, A)	1 (8.0, 0.7, A)	4 (8.0, 0.7, A)	3 (8.0, 0.7, A)
D.	LS SPINE RADIOGRAPHS SHOW NO CONTRAINdications AND IMAGING STUDIES SHOW POSTEROLATERAL HNP, WITH NO FREE FRAGMENT, AND NO SPINAL STENOSIS, AND NO CENTRAL HNP, AND:								
1.	No physical findings of vertebral or SI joint dysfunction, and:	6 (1.0, 1.2, I)	1 (1.0, 1.3, I)	1 (1.0, 1.3, I)	1 (1.0, 1.3, I)	1 (1.0, 1.3, I)	2 (1.0, 1.2, I)	5 (1.0, 1.2, I)	7 (1.0, 1.2, I)
a.	No change in pain since onset	1 (1.0, 1.2, I)	2 (1.0, 1.3, I)	3 (1.0, 1.3, I)	4 (1.0, 1.3, I)	3 (1.0, 1.3, I)	3 (1.0, 1.2, I)	4 (1.0, 1.2, I)	3 (1.0, 1.2, I)
b.	Pain worse since onset	6 (1.0, 1.2, I)	1 (1.0, 1.3, I)	1 (1.0, 1.3, I)	1 (1.0, 1.3, I)	1 (1.0, 1.3, I)	2 (1.0, 1.2, I)	3 (1.0, 1.2, I)	2 (1.0, 1.2, I)
c.	Pain better since onset	6 (1.0, 1.2, I)	1 (1.0, 1.3, I)	1 (1.0, 1.3, I)	1 (1.0, 1.3, I)	1 (1.0, 1.3, I)	1 (1.0, 1.3, I)	3 (1.0, 1.3, I)	1 (1.0, 1.3, I)
2.	Physical findings of vertebral joint dysfunction, and:	1 (6.0, 1.3, I)	3 (7.0, 1.4, I)	3 (7.0, 1.4, I)	1 (6.0, 1.3, I)	1 (6.0, 1.3, I)	3 (6.0, 1.3, I)	1 (6.0, 1.3, I)	1 (6.0, 1.3, I)
a.	No change in pain since onset	1 (6.0, 1.3, I)	2 (6.0, 1.2, D)	3 (6.0, 1.2, D)	4 (6.0, 1.2, D)	3 (6.0, 1.2, D)	3 (6.0, 1.3, D)	5 (6.0, 1.3, D)	2 (5.0, 1.6, D)
b.	Pain worse since onset	1 (7.0, 1.6, I)	2 (7.0, 1.6, I)	2 (7.0, 1.6, I)	3 (7.0, 1.6, I)	2 (7.0, 1.6, I)	3 (7.0, 1.6, I)	4 (7.0, 1.6, I)	2 (7.0, 1.6, I)
c.	Pain better since onset	1 (7.0, 1.6, I)	2 (7.0, 1.6, I)	2 (7.0, 1.6, I)	3 (7.0, 1.6, I)	2 (7.0, 1.6, I)	3 (7.0, 1.6, I)	4 (7.0, 1.6, I)	2 (7.0, 1.6, I)

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MINOR NEUROLOGIC FINDINGS WITH
SCIATIC NERVE IRRITATION, AND:

		RESPONSE TO PRIOR MANIPULATION			
		No Prior Manipulation	Favorable Response (Similar Area)	Favorable Response (Dissimilar Area)	Unfavorable or No Response
3. Physical Findings of SI Joint dysfunction, and:					
a. No change in pain since onset	1 2 3 4 5 6 7 8 9 (7.0, 1.6, D)	1 1 2 3 4 5 6 7 8 9 (7.0, 1.7, D)	1 1 2 2 3 4 5 6 7 8 9 (7.0, 1.7, D)	1 1 2 3 4 5 6 7 8 9 (7.0, 1.7, D)	1 1 2 1 2 1 1 5 6 7 8 9 (105-108)
b. Pain worse since onset	1 2 3 4 5 6 7 8 9 (6.0, 1.6, D)	1 1 2 3 2 1 1 2 3 4 5 6 7 8 9 (6.0, 1.6, D)	1 1 2 3 4 5 6 7 8 9 (6.0, 1.6, D)	1 1 2 3 4 5 6 7 8 9 (6.0, 1.4, D)	1 1 2 3 4 5 6 7 8 9 (109-112)
c. Pain better since onset	1 2 3 4 5 6 7 8 9 (7.0, 1.7, I)	1 1 2 3 1 2 1 2 3 4 5 6 7 8 9 (7.0, 1.8, I)	1 1 2 3 1 3 1 2 3 4 5 6 7 8 9 (7.0, 1.8, I)	1 1 2 3 1 3 1 2 3 4 5 6 7 8 9 (7.0, 1.8, I)	1 1 2 3 4 5 6 7 8 9 (113-116)
E. IS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS AND IMAGING STUDIES SHOW CENTRAL HNP OR SPINAL STENOSIS OR FREE FRAGMENT, AND:					
1. No physical findings of vertebral or SI joint dysfunction, and:	7 2 3 4 5 6 7 8 9 (1.0, 0.7, I)	6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.9, I)	7 2 3 4 5 6 7 8 9 (1.0, 0.7, I)	7 2 3 4 5 6 7 8 9 (1.0, 0.7, I)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)
a. No change in pain since onset	7 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	6 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
b. Pain worse since onset	7 2 3 4 5 6 7 8 9 (1.0, 0.7, I)	6 1 1 2 3 4 5 6 7 8 9 (1.0, 1.1, I)	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)
c. Pain better since onset	1 2 3 4 5 6 7 8 9 (6.0, 1.1, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.2, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, I)	1 2 3 4 5 6 7 8 9 (6.0, 1.4, D)	1 2 3 4 5 6 7 8 9 (137-140)
2. Physical findings of vertebral joint dysfunction, and:	1 2 3 4 5 6 7 8 9 (5.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (6.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (5.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (5.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (129-132)
a. No change in pain since onset	1 2 3 4 5 6 7 8 9 (5.0, 1.1, I)	1 1 2 3 4 5 6 7 8 9 (5.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (5.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (5.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (129-132)
b. Pain worse since onset	1 2 3 4 5 6 7 8 9 (5.0, 1.1, I)	1 1 2 3 4 5 6 7 8 9 (5.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (5.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (5.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (133-136)
c. Pain better since onset	1 2 3 4 5 6 7 8 9 (6.0, 1.1, I)	1 1 2 3 4 5 6 7 8 9 (6.0, 1.2, I)	1 1 2 3 4 5 6 7 8 9 (6.0, 1.3, I)	1 1 2 3 4 5 6 7 8 9 (6.0, 1.4, D)	1 1 2 3 4 5 6 7 8 9 (137-140)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 4
SPINAL MANIPULATION IS INDICATED IN
PATIENTS WITH ACUTE LOW BACK PAIN,
MINOR NEUROLOGIC FINDINGS WITH
SCIATIC NERVE IRRITATION, AND:

	RESPONSE TO PRIOR MANIPULATION		
	No Prior Manipulation	Favorable Response (Similar Area)	Unfavorable Response (Dissimilar Area)
	No Prior Manipulation		
3. Physical findings of SI joint dysfunction, and:			
a. No change in pain since onset	1 1 1 2 3 4 (5.0, 1.4, D)	3 2 2 5 6 7 8 9 (6.0, 1.4, D)	1 1 2 3 4 5 6 7 8 9 (6.0, 1.3, I)
b. Pain worse since onset	1 1 1 1 2 3 4 (5.0, 1.3, I)	3 3 5 6 7 8 9 (5.0, 1.6, I)	1 1 1 2 3 4 5 6 7 8 9 (5.0, 1.3, I)
c. Pain better since onset	1 1 1 2 3 4 (6.0, 1.1, D)	5 2 5 6 7 8 9 (6.0, 1.4, D)	1 1 1 2 3 4 5 6 7 8 9 (6.0, 1.4, D)

Inappropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 5
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH ACUTE LOW
BACK PAIN, AND:

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A. MAJOR NEUROLOGIC FINDINGS

8 1
1 2 3 4 5 6 7 8 9
(1.0, 0.1, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Appendix B
APPROPRIATENESS RATINGS FOR SUBACUTE LOW-BACK PAIN

Chapter 6 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, NO PRIOR MANIPULATIVE TREATMENT, AND:		WEEKS SINCE ONSET OF PAIN	May 1991
		3-6	7-12
A. PAIN IS NO LONGER PRESENT, AND:			

1a. No LS spine radiographs, no joint dysfunction, and:

- a. No neurologic findings

8	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	
(1.0,	0.1,	A)								(1.0,	0.1,	A)							

b. Minor neurologic findings

8	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	
(1.0,	0.4,	A)								(1.0,	0.3,	A)							

1b. No LS spine radiographs, with joint dysfunction, and:

a. No neurologic findings

1	2	3	4	5	2	7	8	9	1	2	3	4	5	6	7	8	9		
(5.0,	1.1,	I)								(5.0,	1.3,	I)							

b. Minor neurologic findings

2	1	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	
(5.0,	2.1,	D)								(5.0,	2.0,	D)							

2. LS spine radiographs show no contraindications and no imaging studies or imaging studies show no HNP and no spinal stenosis, and:

a. No neurologic findings, and:

i. No physical findings indicative of joint dysfunction

8	1	2	3	4	5	6	7	8	9	9	1	2	3	4	5	6	7	8	9	
(1.0,	0.1,	A)								(1.0,	0.0,	A)								

ii. Physical findings indicative of joint dysfunction

1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9		
(7.0,	0.8,	A)								(7.0,	0.9,	A)							

b. Minor neurologic findings, and:

i. No physical findings indicative of joint dysfunction

8	1	2	3	4	5	6	7	8	9	8	1	2	3	4	5	6	7	8	9	
(1.0,	0.2,	A)								(1.0,	0.2,	A)								

ii. Physical findings indicative of joint dysfunction

1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9		
(7.0,	1.0,	I)								(7.0,	1.1,	I)							

c. Major neurologic findings regardless of remainder of exam

8	1	2	3	4	5	6	7	8	9	9	1	2	3	4	5	6	7	8	9	
(1.0,	0.1,	A)								(1.0,	0.0,	A)								

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 6 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, NO PRIOR MANIPULATIVE TREATMENT, AND:	WEEKS SINCE ONSET OF PAIN
	3-6
	7-12

3. LS spine radiographs show no contraindications and imaging studies show posterolateral HNP, with no free fragment, and no spinal stenosis, and no central HNP, and:	
a. No neurologic findings, and:	
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A) (1.0, 0.1, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (7.0, 1.0, I) (7.0, 1.1, I)
b. Minor neurologic findings, and:	
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 8 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A) (1.0, 0.2, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (7.0, 1.2, I) (7.0, 1.3, I)
c. Major neurologic findings regardless of remainder of exam	8 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A) (1.0, 0.0, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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CHAPTER 6 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, NO PRIOR MANIPULATIVE TREATMENT, AND:	WEEKS SINCE ONSET OF PAIN
	3-6
	7-12
4. LS spine radiographs show no contraindications and imaging studies show central RNP or spinal stenosis or free fragment, and:	
a. No neurologic findings, and:	
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (11.0, 0.1, A) 1 2 3 4 5 6 7 8 9 (11.0, 0.0, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (5.0, 0.6, A) 1 2 3 4 5 6 7 8 9 (5.0, 1.0, I)
b. Minor neurologic findings, and:	
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (11.0, 0.3, A) 8 1 2 3 4 5 6 7 8 9 (11.0, 0.1, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (5.0, 0.9, I) 1 2 3 4 5 6 7 8 9 (5.0, 1.0, I)
c. Major neurologic findings regardless of remainder of exam	8 1 2 3 4 5 6 7 8 9 (11.0, 0.1, A) 1 2 3 4 5 6 7 8 9 (11.0, 0.0, A)
B. PAIN STILL PRESENT, BUT DIMINISHED, AND:	
1a. No LS spine radiographs, no joint dysfunction, and:	
a. No neurologic findings and no sciatic nerve irritation	7 1 2 3 4 5 6 7 8 9 (11.0, 0.4, A) 7 2 3 4 5 6 7 8 9 (11.0, 0.2, A)
b. Minor neurologic findings or sciatic nerve irritation	7 1 2 3 4 5 6 7 8 9 (11.0, 0.6, A) 7 1 2 3 4 5 6 7 8 9 (11.0, 0.4, A)
1b. No LS spine radiographs, with joint dysfunction, and:	
a. No neurologic findings and no sciatic nerve irritation	1 2 3 4 5 6 7 8 9 (7.0, 1.1, I) 1 2 3 4 5 6 7 8 9 (7.0, 1.2, I)
b. Minor neurologic findings or sciatic nerve irritation	1 2 3 4 5 6 7 8 9 (6.0, 2.0, I) 1 2 3 4 5 6 7 8 9 (5.0, 2.0, I)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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**Chapter 6
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW BACK
PAIN, NO PRIOR MANIPULATIVE
TREATMENT, AND:**

	WEEKS SINCE ONSET OF PAIN								
	3-6				7-12				
2. LS spine radiographs show no contraindications and no imaging studies or imaging studies show no HNP and no spinal stenosis, and:									
a. No neurologic findings and no sciatic nerve irritation, and:									
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8
(1.0, 0.3, A)									
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
(9.0, 0.7, A)									
b. No neurologic findings, but with sciatic nerve irritation, and:									
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8
(1.0, 0.3, A)									
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
(8.0, 0.6, A)									
c. Minor neurologic findings, but with sciatic nerve irritation, and:									
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8
(1.0, 0.3, A)									
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
(8.0, 0.4, A)									
d. Major neurologic findings, but with sciatic nerve irritation, and:									
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8
(1.0, 0.4, A)									
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
(8.0, 0.4, A)									
e. Major neurologic findings regardless of remainder of exam	8	1	2	3	4	5	6	7	8
(1.0, 0.1, A)									

Inappropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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CHAPTER 6 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, NO PRIOR MANIPULATIVE TREATMENT, AND:	WEEKS SINCE ONSET OF PAIN
3. LS spine radiographs show no contraindications and imaging studies show posterolateral HNP, with no free fragment, and no spinal stenosis, and no central HNP, and:	3-6 7-12
a. No neurologic findings and no sciatic nerve irritation, and:	
i. No physical findings indicative of joint dysfunction	8 1 1 2 3 4 5 6 7 8 9 8 1 (1.0, 0.2, A) (1.0, 0.2, A) (65- 66)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 4 1 (8.0, 0.6, A) (8.0, 0.7, A) (67- 68)
b. No neurologic findings, but with sciatic nerve irritation, and:	
i. No physical findings indicative of joint dysfunction	8 1 1 2 3 4 5 6 7 8 9 8 1 (1.0, 0.4, A) (1.0, 0.3, A) (69- 70)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 4 1 (7.0, 0.7, A) (7.0, 0.8, A) (71- 72)
c. Minor neurologic findings and no sciatic nerve irritation, and:	
i. No physical findings indicative of joint dysfunction	8 1 1 2 3 4 5 6 7 8 9 8 1 (1.0, 0.4, A) (1.0, 0.3, A) (73- 74)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 2 4 3 (7.0, 0.6, A) (7.0, 0.7, A) (75- 76)
d. Minor neurologic findings, but with sciatic nerve irritation, and:	
i. No physical findings indicative of joint dysfunction	8 1 1 2 3 4 5 6 7 8 9 8 1 (1.0, 0.4, A) (1.0, 0.3, A) (77- 78)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 1 4 3 (7.0, 0.7, A) (7.0, 0.6, A) (79- 80)
e. Major neurologic findings regardless of remainder of exam	8 1 1 2 3 4 5 6 7 8 9 9 1 (1.0, 0.1, A) (1.0, 0.0, A) (81- 82)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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**Chapter 6
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW BACK
PAIN, NO PRIOR MANIPULATIVE
TREATMENT, AND:**

	WEEKS SINCE ONSET OF PAIN					
	3-6			7-12		
4. LS spine radiographs show no contraindications and imaging studies show central HNP or spinal stenosis or free fragment, and:						
a. No neurologic findings and no sciatic nerve irritation, and:						
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5
(1.0, 0.3, A)	5	6	7	8	9	9
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6
(6.0, 1.1, I)	6	7	8	9	1	2
b. No neurologic findings, but with sciatic nerve irritation, and:						
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5
(1.0, 0.4, A)	5	6	7	8	9	9
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6
(7.0, 0.9, A)	7	8	9	1	2	3
c. Minor neurologic findings and no sciatic nerve irritation, and:						
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5
(1.0, 0.4, A)	5	6	7	8	9	9
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6
(6.0, 0.8, A)	7	8	9	1	2	3
d. Minor neurologic findings, but with sciatic nerve irritation, and:						
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5
(1.0, 0.4, A)	5	6	7	8	9	9
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6
(6.0, 0.9, A)	7	8	9	1	2	3
e. Major neurologic findings regardless of remainder of exam	8	1	2	3	4	5
(1.0, 0.1, A)	6	7	8	9	1	2

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 6
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW BACK
PAIN, NO PRIOR MANIPULATIVE
TREATMENT, AND:

C. PAIN STILL PRESENT, UNCHANGED, AND:

1a. No LS spine radiographs, no joint dysfunction, and:

- a. No neurologic findings and no sciatic nerve irritation

8	1	1	1	6	7	8	9	8	1
(1.0,	0.4,	A)							
- b. Minor neurologic findings or sciatic nerve irritation

8	1	1	1	3	4	5	6	7	8
(1.0,	0.4,	A)							

1b. No LS spine radiographs, with joint dysfunction, and:

- a. No neurologic findings and no sciatic nerve irritation

1	2	3	4	5	6	7	8	9	1
(6.0,	1.6,	I)							
- b. Minor neurologic findings or sciatic nerve irritation

1	1	1	2	2	1	1	1	1	2	1	1
1	2	3	4	5	6	7	8	9	1	2	3
(5.0,	2.2,	D)									

WEKS SINCE ONSET OF PAIN

3-6	7-12
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Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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CHAPTER 6 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, NO PRIOR MANIPULATIVE TREATMENT, AND:		WEEKS SINCE ONSET OF PAIN	
		3-6	7-12
2. LS spine radiographs show no contraindications and no imaging studies or imaging studies show no HNP and no spinal stenosis, and:			
a. No neurologic findings and no sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	8 1 (109-110)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.7, A)	3 3 (7.0, 0.8, A)	3 (111-112)
b. No neurologic findings, but with sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	8 1 (1.0, 0.2, A)	9 (113-114)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.8, A)	4 2 3 (7.0, 0.9, A)	3 (115-116)
c. Minor neurologic findings and no sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	8 1 (1.0, 0.2, A)	9 (117-118)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.9, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.0, I)	3 (119-120)
d. Minor neurologic findings, but with sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	8 1 (1.0, 0.3, A)	9 (121-122)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.9, A)	1 4 1 (7.0, 1.1, I)	3 (123-124)
e. Major neurologic findings regardless of remainder of exam	8 1 (1.0, 0.1, A)	9 (1.0, 0.0, A)	9 (125-126)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

May 1991

Chapter 6
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW BACK
PAIN, NO PRIOR MANIPULATIVE
TREATMENT, AND:

	WEEKS SINCE ONSET OF PAIN	
	3-6	
3. IS spine radiographs show no contraindications and imaging studies show posterolateral HNP, with no free fragment, and no spinal stenosis, and no central HNP, and:		
a. No neurologic findings and no sciatic nerve irritation, and:		
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 (1.0, 0.4, A) (1.0, 0.2, A)	(127-128)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 (7.0, 0.2, A) (7.0, 0.4, A)	(129-130)
b. No neurologic findings, but with sciatic nerve irritation, and:		
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 (1.0, 0.4, A) (1.0, 0.3, A)	(131-132)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 (7.0, 0.6, A) (7.0, 0.7, A)	(133-134)
c. Minor neurologic findings and no sciatic nerve irritation, and:		
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 (1.0, 0.4, A) (1.0, 0.2, A)	(135-136)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 (7.0, 0.7, A) (7.0, 0.7, A)	(137-138)
d. Minor neurologic findings, but with sciatic nerve irritation, and:		
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 (1.0, 0.4, A) (1.0, 0.2, A)	(139-140)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 (7.0, 0.7, A) (7.0, 0.7, A)	(141-142)
e. Major neurologic findings regardless of remainder of exam	8 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 (1.0, 0.1, A) (1.0, 0.0, A)	(143-144)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

CHAPTER 6
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW BACK
PAIN, NO PRIOR MANIPULATIVE
TREATMENT, AND:

	WEEKS SINCE ONSET OF PAIN									
	3-6			7-12						
4. LS spine radiographs show no contraindications and imaging studies show central HNP or spinal stenosis or free fragment, and:										
a. No neurologic findings and no sciatic nerve irritation, and:										
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8	
(1.0, 0.4, A)	(1.0,	0.4,	A)	(1.0,	0.2,	A)				
ii. Physical findings indicative of joint dysfunction	1	1	1	4	1	2	4	2	4	
(6.0, 1.0, I)	(6.0,	1.0,	I)	(6.0,	1.0,	I)				
b. No neurologic findings, but with sciatic nerve irritation, and:										
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8	
(1.0, 0.4, A)	(1.0,	0.4,	A)	(1.0,	0.2,	A)				
ii. Physical findings indicative of joint dysfunction	1	2	4	1	1	2	3	1	1	
(6.0, 0.9, A)	(6.0,	0.9,	A)	(6.0,	1.1,	I)				
c. Minor neurologic findings, and no sciatic nerve irritation, and:										
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8	
(1.0, 0.4, A)	(1.0,	0.4,	A)	(1.0,	0.2,	A)				
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9	
(6.0, 0.9, A)	(6.0,	0.9,	A)	(6.0,	1.0,	A)				
d. Minor neurologic findings, but with sciatic nerve irritation, and:										
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8	
(1.0, 0.4, A)	(1.0,	0.4,	A)	(1.0,	0.2,	A)				
ii. Physical findings indicative of joint dysfunction	1	1	1	5	1	2	3	4	1	
(6.0, 0.8, A)	(6.0,	0.8,	A)	(6.0,	1.0,	I)				
e. Major neurologic findings regardless of remainder of exam	8	1	2	3	4	5	6	7	8	
	(1.0, 0.1, A)	(1.0,	0.1,	A)	(1.0,	0.0,	A)			

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 6 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, NO PRIOR MANIPULATIVE TREATMENT, AND:	WEKS SINCE ONSET OF PAIN	
D. PAIN IS WORSE, AND:		
1a. No LS spine radiographs, no joint dysfunction, and:		
a. No neurologic findings and no sciatic nerve irritation	9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A) (1.0, 0.2, A)	(163-164)
b. Minor neurologic findings or sciatic nerve irritation	8 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A) (1.0, 0.2, A)	(165-166)
1b. No LS spine radiographs, with joint dysfunction, and:		
a. No neurologic findings and no sciatic nerve irritation	2 2 1 1 1 1 1 1 1 2 1 1 1 2 1 1 1 (4.0, 2.1, D) (4.0, 2.1, D)	(167-168)
b. Minor neurologic findings or sciatic nerve irritation	2 3 1 1 1 1 2 3 1 1 1 1 2 3 4 5 6 7 8 9 (3.0, 1.9, D) (3.0, 1.8, I)	(169-170)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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CHAPTER 6 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, NO PRIOR MANIPULATIVE TREATMENT, AND:		WEEKS SINCE ONSET OF PAIN	
		3-6	7-12
2.	LS spine radiographs show no contraindications and no imaging studies or imaging studies show no HNP and no spinal stenosis, and:		
a.	No neurologic findings and no sciatic nerve irritation, and:		
i.	No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)
ii.	Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.9, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.0, A)
b.	No neurologic findings, but with sciatic nerve irritation, and:		
i.	No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)
ii.	Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.9, A)	1 2 3 4 5 6 7 8 9 (8.0, 1.0, A)
c.	Minor neurologic findings and no sciatic nerve irritation, and:		
i.	No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)
ii.	Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (7.0, 0.9, A)
d.	Minor neurologic findings, but with sciatic nerve irritation, and:		
i.	No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)
ii.	Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (7.0, 0.8, A)
e.	Major neurologic findings regardless of remainder of exam	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	9 1 2 3 4 5 6 7 8 9 (1.0, 0.0, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 6
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW BACK
PAIN, NO PRIOR MANIPULATIVE
TREATMENT, AND:

WEEKS SINCE ONSET OF PAIN

 3-6 7-12

3. LS spine radiographs show no contraindications and imaging studies show posterolateral HNP, with no free fragment, and no spinal stenosis, and no central HNP, and:

a. No neurologic findings and no sciatic nerve irritation, and:

- | | | |
|---|--|---|
| i. No physical findings indicative of joint dysfunction | 8 1 2 3 4 5 6 7 8 9 | 8 1 |
| | (1.0, 0.4, A) | (1.0, 0.2, A) |
| ii. Physical findings indicative of joint dysfunction | 1 2 3 4 5 6 7 8 9 | 1 2 3 4 5 6 7 8 9 |
| | (7.0, 0.7, A) | (7.0, 0.7, A) |
| b. No neurologic findings, but with sciatic nerve irritation, and: | | |
| i. No physical findings indicative of joint dysfunction | 8 1 2 3 4 5 6 7 8 9 | 8 1 |
| | (1.0, 0.4, A) | (1.0, 0.2, A) |
| ii. Physical findings indicative of joint dysfunction | 1 2 3 4 5 6 7 8 9 | 1 2 3 4 5 6 7 8 9 |
| | (7.0, 0.9, A) | (7.0, 0.8, A) |
| c. Minor neurologic findings and no sciatic nerve irritation, and: | | |
| i. No physical findings indicative of joint dysfunction | 8 1 2 3 4 5 6 7 8 9 | 8 1 |
| | (1.0, 0.4, A) | (1.0, 0.2, A) |
| ii. Physical findings indicative of joint dysfunction | 1 2 3 4 5 6 7 8 9 | 1 2 3 4 5 6 7 8 9 |
| | (7.0, 0.8, A) | (7.0, 0.8, A) |
| d. Minor neurologic findings, but with sciatic nerve irritation, and: | | |
| i. No physical findings indicative of joint dysfunction | 8 1 2 3 4 5 6 7 8 9 | 8 1 |
| | (1.0, 0.4, A) | (1.0, 0.2, A) |
| ii. Physical findings indicative of joint dysfunction | 1 2 3 4 5 6 7 8 9 | 1 2 3 4 5 6 7 8 9 |
| | (7.0, 0.8, A) | (7.0, 0.8, A) |
| e. Major neurologic findings regardless of remainder of exam | 8 1 2 3 4 5 6 7 8 9 | 9 |
| | (1.0, 0.1, A) | (1.0, 0.0, A) |

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 6
**SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW BACK
PAIN, NO PRIOR MANIPULATIVE
TREATMENT, AND:**

WEEKS SINCE ONSET OF PAIN
7-12

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4. LS spine radiographs show no contraindications and imaging studies show central HNP or spinal stenosis or free fragment, and:

- No neurologic findings and no sciatic nerve irritation, and:
 - No physical findings indicative of joint dysfunction
 - Physical findings indicative of joint dysfunction
 - No physical findings, but with sciatic nerve irritation, and:
 - No physical findings indicative of joint dysfunction
 - Physical findings indicative of joint dysfunction
 - Minor neurologic findings and no sciatic nerve irritation, and:
 - No physical findings indicative of joint dysfunction
 - Physical findings indicative of joint dysfunction
 - Minor neurologic findings, but with sciatic nerve irritation, and:
 - No physical findings indicative of joint dysfunction
 - Physical findings indicative of joint dysfunction
 - Major neurologic findings regardless of remainder of exam

(207-208) (209-210) (211-212) (213-214) (215-216) (217-218) (219-220) (221-222) (223-224)

Appropriateness scale: 1 = extremely Inappropriate, 5 = equivocal, 9 = extremely appropriate

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	WEEKS SINCE LAST TREATMENT		
	<3	3-6	7-12
A. PAIN IS NO LONGER PRESENT, AND:			
1a. No LS spine radiographs, no joint dysfunction, and:			
a. No neurologic findings	7 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)
b. Minor neurologic findings	7 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)
1b. No LS spine radiographs, with joint dysfunction, and:			
a. No neurologic findings	1 2 3 4 5 6 7 8 9 (6.0, 1.4, I)	2 2 2 2 2 2 1 1 1 1 (6.0, 1.6, D)	1 1 1 2 3 4 5 6 7 8 9 (6.0, 1.9, D)
b. Minor neurologic findings	2 1 2 3 4 5 6 7 8 9 (6.0, 2.2, D)	2 1 2 3 4 5 6 7 8 9 (6.0, 2.1, D)	1 2 3 4 5 6 7 8 9 (5.0, 1.8, D)
2. LS spine radiographs show no contraindications and no imaging studies or imaging studies show no HNP and no spinal stenosis, and:			
a. No neurologic findings, and:			
i. No physical findings indicative of joint dysfunction	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)	7 2 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	8 1 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (7.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (7.0, 0.9, I)
b. Minor neurologic findings, and:			
i. No physical findings indicative of joint dysfunction	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)	7 2 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	8 1 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (7.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (7.0, 0.9, I)
c. Major neurologic findings regardless of remainder of exam	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	9 1 2 3 4 5 6 7 8 9 (1.0, 0.0, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

CHAPTER 7 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, PRIOR MANIPULATION, WITH FAVORABLE RESPONSE, AND:	WEKS SINCE LAST TREATMENT		
	<3	3-6	7-12
3. LS spine radiographs show no contraindications and imaging studies show posterolateral HNP, with no free fragment, and no spinal stenosis, and no central HNP, and:			
a. No neurologic findings, and:			
i. No physical findings indicative of joint dysfunction	7 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.1, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.4, D)
b. Minor neurologic findings, and:			
i. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 2 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (6.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (6.0, 1.3, I)
c. Major neurologic findings regardless of remainder of exam	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	9 1 2 3 4 5 6 7 8 9 (1.0, 0.0, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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	WEEKS SINCE LAST TREATMENT									
	<3			3-6			7-12			
4. LS spine radiographs show no contraindications and imaging studies show central HNP or spinal stenosis or free fragment, AND:										
a. No neurologic findings, and:										
1. No physical findings indicative of joint dysfunction	7	2	1	2	3	4	5	6	7	8
(1.0, 0.2, A)	1	2	3	4	5	6	7	8	9	1
11. Physical findings indicative of joint dysfunction	1	2	1	2	2	3	1	2	2	3
(6.0, 1.1, A)	1	2	3	4	5	6	7	8	9	1
b. Minor neurologic findings, and:										
1. No physical findings indicative of joint dysfunction	7	1	1	2	3	4	5	6	7	8
(1.0, 0.6, A)	1	2	3	4	5	6	7	8	9	1
11. Physical findings indicative of joint dysfunction	1	2	1	1	4	2	1	1	1	3
(6.0, 0.9, A)	1	2	3	4	5	6	7	8	9	1
c. Major neurologic findings regardless of remainder of exam	8	1	1	2	3	4	5	6	7	8
(1.0, 0.2, A)	1	2	3	4	5	6	7	8	9	1
B. PAIN STILL PRESENT, BUT DIMINISHED, AND:										
1a. No LS spine radiographs, no joint dysfunction, and:										
a. No neurologic findings and no sciatic nerve irritation	6	2	1	2	3	4	5	6	7	8
(1.0, 0.7, A)	1	2	3	4	5	6	7	8	9	1
b. Minor neurologic findings or sciatic nerve irritation	6	2	1	2	3	4	1	2	3	4
(1.0, 0.7, A)	1	2	3	4	5	6	7	8	9	1
1b. No LS spine radiographs, with joint dysfunction, and:										
a. No neurologic findings and no sciatic nerve irritation	1	2	3	4	5	1	1	2	2	4
(8.0, 0.9, A)	1	2	3	4	5	6	7	8	9	1
b. Minor neurologic findings or sciatic nerve irritation	1	2	3	4	5	6	7	8	9	1
(6.0, 1.8, I)	1	2	3	4	5	6	7	8	9	1

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

CHAPTER 7
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW
BACK PAIN, PRIOR MANIPULATION,
WITH FAVORABLE RESPONSE, AND:

	WEEKS SINCE LAST TREATMENT	
	<3	3-6
	7-12	
2. LS spine radiographs show no contraindications and no imaging studies or imaging studies show no HNP and no spinal stenosis, and:		
a. No neurologic findings and no sciatic nerve irritation, and:		
i. No physical findings indicative of joint dysfunction	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.3, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.4, A)
b. No neurologic findings, but with sciatic nerve irritation, and:		
i. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.3, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.4, A)
c. Minor neurologic findings and no sciatic nerve irritation, and:		
i. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.4, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)
d. Minor neurologic findings, but with sciatic nerve irritation, and:		
i. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.4, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)
e. Major neurologic findings regardless of remainder of exam	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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	WEEKS SINCE LAST TREATMENT		
	<3	3-6	7-12
3. IS SPINE RADIOPHOTOGRAPHS SHOW NO CONTRAINDICATIONS AND IMAGING STUDIES SHOW PSEUDO-LATERAL HNP, WITH NO FREE FRAGMENT, AND NO SPINAL STENOSIS, AND NO CENTRAL HNP, AND:			
a. No neurologic findings and no sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (7.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.2, I)
b. No neurologic findings, but with sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (7.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.2, I)
c. Minor neurologic findings and no sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (7.0, 0.9, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.3, I)
d. Minor neurologic findings, but with sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.9, A)	1 2 3 4 5 6 7 8 9 (7.0, 1.0, I)	1 2 3 4 5 6 7 8 9 (7.0, 1.4, I)
e. Major neurologic findings regardless of remainder of exam	8 1 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	8 1 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	9 1 2 3 4 5 6 7 8 9 (1.0, 0.0, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

CHAPTER 7	SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, PRIOR MANIPULATION, WITH FAVORABLE RESPONSE, AND:	WEEKS SINCE LAST TREATMENT	
May 1991		<3	(124-126)
		3-6	
		7-12	
4.	IS spine radiographs show no contraindications and imaging studies show central HNP or spinal stenosis or free fragment, and:		
a.	No neurologic findings and no sciatic nerve irritation, and:		
i.	No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A) (1.0, 0.6, A) (1.0, 0.3, A)	(124-126)
ii.	Physical findings indicative of joint dysfunction	1 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (7.0, 1.1, I) (7.0, 1.2, I) (7.0, 1.6, I)	(127-129)
b.	No neurologic findings, but with sciatic nerve irritation, and:		
i.	No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A) (1.0, 0.6, A) (1.0, 0.3, A)	(130-132)
ii.	Physical findings indicative of joint dysfunction	1 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (7.0, 1.0, A) (6.0, 1.0, A) (6.0, 1.3, A)	
c.	Minor neurologic findings and no sciatic nerve irritation, and:		
i.	No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A) (1.0, 0.6, A) (1.0, 0.3, A)	(136-138)
ii.	Physical findings indicative of joint dysfunction	1 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (6.0, 0.9, A) (6.0, 0.8, A) (6.0, 1.1, A)	(139-141)
d.	Minor neurologic findings, but with sciatic nerve irritation, and:		
i.	No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A) (1.0, 0.6, A) (1.0, 0.3, A)	(142-144)
ii.	Physical findings indicative of joint dysfunction	1 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (6.0, 0.9, A) (6.0, 0.8, A) (6.0, 1.1, A)	(145-147)
e.	Major neurologic findings regardless of remainder of exam	8 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 9 (1.0, 0.2, A) (1.0, 0.1, A) (1.0, 0.0, A)	(148-150)

CHAPTER 7		WEKS SINCE LAST TREATMENT		
SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, PRIOR MANIPULATION, WITH FAVOURABLE RESPONSE AND, IF PAIN IS PERSISTENT.		<3	3-6	7-12

C. PAIN STILL PRESENT, UNCHANGED, AND:	
1a. No LS spine radiographs, no joint dysfunction, and:	
a. No neurologic findings and no sciatic nerve irritation	7 1 3 4 5 6 7 8 9 7 1 3 4 5 6 7 8 9 7 1 1 (1.0, 0.6, A) (1.0, 0.6, A) (1.0, 0.3, A)
b. Minor neurologic findings or sciatic nerve irritation	7 1 2 3 4 5 6 7 8 9 7 1 2 3 4 5 6 7 8 9 7 1 1 (1.0, 0.6, A) (1.0, 0.6, A) (1.0, 0.3, A)
1b. No LS spine radiographs, with joint dysfunction, and:	
a. No neurologic findings and no sciatic nerve irritation	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 1 4 2 1 (7.0, 1.9, I) (6.0, 1.6, A) (5.0, 1.2, A)
b. Minor neurologic findings or sciatic nerve irritation	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 3 5 6 7 8 9 (5.0, 2.0, I) (5.0, 1.1, I) (5.0, 0.8, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 7
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW
BACK PAIN, PRIOR MANIPULATION,
WITH FAVORABLE RESPONSE, AND:

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WEEKS SINCE LAST TREATMENT**<3****3-6****7-12**

2. LS spine radiographs show no contraindications and no imaging studies or imaging studies show no HNP and no spinal stenosis, and:

- a. No neurologic findings and no sciatic nerve irritation, and:

1.	No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	(163-165)
ii.	Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.7, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.8, A)	(166-168)
b.	No neurologic findings, but with sciatic nerve irritation, and:				
i.	No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	(169-171)
ii.	Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.8, A)	1 2 3 4 5 6 7 8 9 (8.0, 0.8, A)	(172-174)
c.	Minor neurologic findings and no sciatic nerve irritation, and:				
i.	No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	(175-177)
ii.	Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.9, I)	1 2 3 4 5 6 7 8 9 (7.0, 0.8, I)	1 2 3 4 5 6 7 8 9 (7.0, 0.9, I)	(178-180)
d.	Minor neurologic findings, but with sciatic nerve irritation, and:				
i.	No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	(181-183)
ii.	Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 0.9, I)	1 2 3 4 5 6 7 8 9 (7.0, 0.8, I)	1 2 3 4 5 6 7 8 9 (7.0, 0.9, I)	(184-186)
e.	Major neurologic findings regardless of remainder of exam	8 1 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.0, A)	(187-189)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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	WEEKS SINCE LAST TREATMENT							
	<3	3-6	7-12					
Chapter 7 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, PRIOR MANIPULATION, WITH FAVORABLE RESPONSE, AND:								
3. LS spine radiographs show no contraindications and imaging studies show posterolateral HNP, with no free fragment, and no spinal stenosis, and no central HNP, and:								
a. No neurologic findings and no sciatic nerve irritation, and:								
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.4, A)	5 (1.0, 0.4, A)	6 (1.0, 0.4, A)	7 (1.0, 0.4, A)	8 (1.0, 0.4, A)	9 (1.0, 0.4, A)	8 (1.0, 0.4, A)
ii. Physical findings indicative of joint dysfunction	1 (7.0, 0.4, A)	2 (7.0, 0.4, A)	3 (7.0, 0.4, A)	4 (7.0, 0.4, A)	5 (7.0, 0.4, A)	6 (7.0, 0.4, A)	7 (7.0, 0.4, A)	8 (7.0, 0.4, A)
b. No neurologic findings, but with sciatic nerve irritation, and:								
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.4, A)	2 (1.0, 0.4, A)	3 (1.0, 0.4, A)	4 (1.0, 0.4, A)	5 (1.0, 0.4, A)	6 (1.0, 0.4, A)	7 (1.0, 0.4, A)
ii. Physical findings indicative of joint dysfunction	1 (7.0, 0.8, A)	2 (7.0, 0.8, A)	3 (7.0, 0.8, A)	4 (7.0, 0.8, A)	5 (7.0, 0.8, A)	6 (7.0, 0.8, A)	7 (7.0, 0.8, A)	8 (7.0, 0.8, A)
c. Minor neurologic findings and no sciatic nerve irritation, and:								
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.4, A)	2 (1.0, 0.4, A)	3 (1.0, 0.4, A)	4 (1.0, 0.4, A)	5 (1.0, 0.4, A)	6 (1.0, 0.4, A)	7 (1.0, 0.4, A)
ii. Physical findings indicative of joint dysfunction	1 (7.0, 0.7, A)	2 (7.0, 0.7, A)	3 (7.0, 0.7, A)	4 (7.0, 0.7, A)	5 (7.0, 0.7, A)	6 (7.0, 0.7, A)	7 (7.0, 0.7, A)	8 (7.0, 0.7, A)
d. Minor neurologic findings, but with sciatic nerve irritation, and:								
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.4, A)	2 (1.0, 0.4, A)	3 (1.0, 0.4, A)	4 (1.0, 0.4, A)	5 (1.0, 0.4, A)	6 (1.0, 0.4, A)	7 (1.0, 0.4, A)
ii. Physical findings indicative of joint dysfunction	1 (7.0, 0.9, A)	2 (7.0, 0.9, A)	3 (7.0, 0.9, A)	4 (7.0, 0.9, A)	5 (7.0, 0.9, A)	6 (7.0, 0.9, A)	7 (7.0, 0.9, A)	8 (7.0, 0.9, A)
e. Major neurologic findings regardless of remainder of exam	8 (1.0, 0.2, A)	1 (1.0, 0.1, A)	2 (1.0, 0.1, A)	3 (1.0, 0.1, A)	4 (1.0, 0.1, A)	5 (1.0, 0.1, A)	6 (1.0, 0.1, A)	7 (1.0, 0.1, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

CHAPTER 7
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW
BACK PAIN, PRIOR MANIPULATION,
WITH FAVORABLE RESPONSE, AND:

	WEEKS SINCE LAST TREATMENT									
	<3			3-6			7-12			
4. LS spine radiographs show no contraindications and imaging studies show central HNP or spinal stenosis or free fragment, and;										
a. No neurologic findings and no sciatic nerve irritation, and;										
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8	9
(1.0, 0.4, A)	(1.0, 0.3, A)	(1.0, 0.2, A)								
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9	1
(6.0, 1.1, A)	(7.0, 1.2, A)	(7.0, 1.6, I)								
b. No neurologic findings, but with sciatic nerve irritation, and;										
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8	9
(1.0, 0.4, A)	(1.0, 0.3, A)	(1.0, 0.2, A)								
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9	1
(6.0, 1.0, A)	(6.0, 1.2, A)	(6.0, 1.6, I)								
c. Minor neurologic findings and no sciatic nerve irritation, and;										
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8	9
(1.0, 0.4, A)	(1.0, 0.3, A)	(1.0, 0.2, A)								
ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9	1
(6.0, 0.8, A)	(6.0, 1.0, A)	(6.0, 1.3, I)								
d. Minor neurologic findings, but with sciatic nerve irritation, and;										
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8	9
(1.0, 0.4, A)	(1.0, 0.3, A)	(1.0, 0.2, A)								
ii. Physical findings indicative of joint dysfunction	1	1	2	4	1	1	2	4	1	1
(6.0, 0.9, A)	(6.0, 0.9, A)	(6.0, 1.2, A)								
e. Major neurologic findings regardless of remainder of exam	8	1	2	3	4	5	6	7	8	9
(1.0, 0.2, A)	(1.0, 0.1, A)	(1.0, 0.0, A)								

Inappropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 7
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW
BACK PAIN, PRIOR MANIPULATION,
WITH FAVORABLE RESPONSE, AND:

D. PAIN IS WORSE, AND:

1a. No LS spine radiographs, no joint dysfunction, and:

- a. No neurologic findings and no sciatic nerve irritation

1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9			
(1.0,	0.6,	A)							(1.0,	0.4,	A)							(1.0,	0.3,	A)
- b. Minor neurologic findings or sciatic nerve irritation

1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9			
(1.0,	0.6,	A)							(1.0,	0.4,	A)							(1.0,	0.3,	A)

1b. No LS spine radiographs, with joint dysfunction, and:

- a. No neurologic findings and no sciatic nerve irritation

1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9			
(6.0,	1.4,	D)							(5.0,	1.2,	I)							(5.0,	1.3,	I)
- b. Minor neurologic findings or sciatic nerve irritation

2	1	2	3	4	5	6	7	8	9	2	1	2	3	4	5	6	7	9		
(5.0,	1.6,	D)							(5.0,	1.1,	I)							(4.0,	1.3,	I)

WEKS SINCE LAST TREATMENT

<3

3-6

7-12

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 7 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH SUBACUTE LOW BACK PAIN, PRIOR MANIPULATION, WITH FAVORABLE RESPONSE, AND:		WEEKS SINCE LAST TREATMENT									
		<3	3-6	7-12							
2.	LS spine radiographs show no contraindications and no imaging studies or imaging studies show no HNP and no spinal stenosis, and:										
a.	No neurologic findings and no sciatic nerve irritation, and:										
i.	No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.4, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	1 (1.0, 0.3, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	9 (1.0, 0.1, A)
ii.	Physical findings indicative of joint dysfunction	1 (7.0, 1.2, I)	2 (7.0, 1.2, I)	3 (7.0, 1.2, I)	2 (7.0, 1.2, I)	3 (7.0, 1.2, I)	4 (7.0, 1.2, I)	3 (7.0, 1.2, I)	2 (7.0, 1.2, I)	3 (7.0, 1.2, I)	4 (7.0, 1.2, I)
b.	No neurologic findings, but with sciatic nerve irritation, and:										
i.	No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.4, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	1 (1.0, 0.3, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	9 (1.0, 0.1, A)
ii.	Physical findings indicative of joint dysfunction	1 (7.0, 1.3, I)	2 (7.0, 1.3, I)	3 (7.0, 1.3, I)	2 (7.0, 1.3, I)	3 (7.0, 1.3, I)	4 (7.0, 1.3, I)	3 (7.0, 1.3, I)	2 (7.0, 1.3, I)	3 (7.0, 1.3, I)	4 (7.0, 1.3, I)
c.	Minor neurologic findings and no sciatic nerve irritation, and:										
i.	No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.4, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	1 (1.0, 0.3, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	9 (1.0, 0.1, A)
ii.	Physical findings indicative of joint dysfunction	1 (6.0, 1.1, I)	2 (6.0, 1.1, I)	3 (6.0, 1.1, I)	2 (6.0, 1.1, I)	3 (6.0, 1.1, I)	4 (6.0, 1.1, I)	3 (6.0, 1.1, I)	2 (6.0, 1.1, I)	3 (6.0, 1.1, I)	4 (6.0, 1.1, I)
d.	Minor neurologic findings, but with sciatic nerve irritation, and:										
i.	No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.4, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	1 (1.0, 0.3, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	1 (1.0, 0.3, A)	8 (1.0, 0.3, A)	9 (1.0, 0.1, A)
ii.	Physical findings indicative of joint dysfunction	1 (6.0, 1.1, I)	2 (6.0, 1.1, I)	3 (6.0, 1.1, I)	2 (6.0, 1.1, I)	3 (6.0, 1.1, I)	4 (6.0, 1.1, I)	2 (6.0, 1.1, I)	3 (6.0, 1.1, I)	4 (6.0, 1.1, I)	5 (6.0, 1.3, I)
e.	Major neurologic findings regardless of remainder of exam	8 (1.0, 0.2, A)	1 (1.0, 0.2, A)	2 (1.0, 0.1, A)	3 (1.0, 0.1, A)	4 (1.0, 0.1, A)	5 (1.0, 0.1, A)	6 (1.0, 0.1, A)	7 (1.0, 0.0, A)	8 (1.0, 0.0, A)	9 (1.0, 0.0, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 7
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW
BACK PAIN, PRIOR MANIPULATION,
WITH FAVORABLE RESPONSE, AND:

	WEEKS SINCE LAST TREATMENT		
	<3	3-6	7-12
3. LS spine radiographs show no contraindications and imaging studies show posterolateral HNP, with no free fragment, and no spinal stenosis, and no central HNP, and:			
a. No neurologic findings and no sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.3, A)	8 (1.0, 0.2, A)
ii. Physical findings indicative of joint dysfunction	1 (6.0, 0.9, I)	2 (6.0, 0.9, I)	2 (6.0, 1.2, I)
b. No neurologic findings, but with sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.3, A)	8 (1.0, 0.2, A)
ii. Physical findings indicative of joint dysfunction	1 (7.0, 1.1, I)	2 (6.0, 1.1, I)	2 (6.0, 1.4, I)
c. Minor neurologic findings and no sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.3, A)	8 (1.0, 0.2, A)
ii. Physical findings indicative of joint dysfunction	1 (6.0, 1.0, I)	1 (6.0, 1.1, I)	1 (6.0, 1.4, I)
d. Major neurologic findings and no sciatic nerve irritation, and:			
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.4, A)	1 (1.0, 0.3, A)	8 (1.0, 0.2, A)
ii. Physical findings indicative of joint dysfunction	1 (6.0, 0.9, A)	1 (6.0, 1.0, A)	1 (6.0, 1.3, I)
e. Major neurologic findings regardless of remainder of exam	8 (1.0, 0.2, A)	8 (1.0, 0.1, A)	9 (1.0, 0.0, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 7
SPINAL MANIPULATION IS INDICATED
IN PATIENTS WITH SUBACUTE LOW
BACK PAIN, PRIOR MANIPULATION,
WITH FAVORABLE RESPONSE, AND:

	WEEKS SINCE LAST TREATMENT									
	<3	3-6	7-12							
4. LS spine radiographs show no contraindications and imaging studies show central HNP or spinal stenosis or free fragment, and:										
a. No neurologic findings and no sciatic nerve irritation, and:										
i. No physical findings indicative of joint dysfunction	8 1 1	2 2 3	3 3 4	4 5 6	5 6 7	8 9 9	9 1 1	2 3 4	5 6 7	8 9 9
ii. Physical findings indicative of joint dysfunction	(1.0, 0.4, A)	(1.0, 0.2, A)	(1.0, 0.2, A)					(1.0, 0.2, A)		
iii. No neurologic findings, but with sciatic nerve irritation, and:										
i. No physical findings indicative of joint dysfunction	8 1 1	2 2 3	3 3 4	4 5 6	5 6 7	8 9 9	9 1 1	2 3 4	5 6 7	8 9 9
ii. Physical findings indicative of joint dysfunction	(1.0, 0.4, A)	(1.0, 0.2, A)	(1.0, 0.2, A)					(1.0, 0.2, A)		
c. Minor neurologic findings and no sciatic nerve irritation, and:										
i. No physical findings indicative of joint dysfunction	8 1 1	2 2 3	3 3 4	4 5 6	5 6 7	8 9 9	9 1 1	2 3 4	5 6 7	8 9 9
ii. Physical findings indicative of joint dysfunction	(1.0, 0.4, A)	(1.0, 0.2, A)	(1.0, 0.2, A)					(1.0, 0.2, A)		
d. Major neurologic findings, but with sciatic nerve irritation, and:										
i. No physical findings indicative of joint dysfunction	8 1 1	2 2 3	3 3 4	4 5 6	5 6 7	8 9 9	9 1 1	2 3 4	5 6 7	8 9 9
ii. Physical findings indicative of joint dysfunction	(1.0, 0.4, A)	(1.0, 0.2, A)	(1.0, 0.2, A)					(1.0, 0.2, A)		
e. Major neurologic findings regardless of remainder of exam	8 1 1	2 2 3	3 3 4	4 5 6	5 6 7	8 9 9	9 1 1	2 3 4	5 6 7	8 9 9

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Appendix C
APPROPRIATENESS RATINGS FOR CHRONIC LOW-BACK PAIN

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Chapter 8
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), NO PRIOR
MANIPULATIVE TREATMENT, AND:

A1. NO LS SPINE RADIOGRAPHS AND NO EVIDENCE OF
JOINT DYSFUNCTION

1. No neurologic findings and
no sciatic nerve irritation 7 1 1
 1 2 3 4 5 6 7 8 9
 (1.0, 0.3, A) (1- 1)
2. Minor neurologic findings or
sciatic nerve irritation 7 1 1
 1 2 3 4 5 6 7 8 9
 (1.0, 0.3, A) (2- 2)

A2. NO LS SPINE RADIOGRAPHS AND EVIDENCE OF
JOINT DYSFUNCTION

1. No neurologic findings and
no sciatic nerve irritation 1 1 1 3 1 2
 1 2 3 4 5 6 7 8 9
 (5.0, 1.2, D) (3- 3)
2. Minor neurologic findings or
sciatic nerve irritation 2 1 2 2 2
 1 2 3 4 5 6 7 8 9
 (4.0, 1.7, D) (4- 4)

B. LS SPINE RADIOGRAPHS SHOW NO
CONTRAINdicATIONS AND NO IMAGING
STUDIES, AND:

1. No neurological findings, and no
sciatic nerve irritation, and:
 - a. Continued biomechanical or
psychosocial stress present, and:
 1. No physical findings indicative
of joint dysfunction 8 1
 1 2 3 4 5 6 7 8 9
 (1.0, 0.3, A) (5- 5)
 11. Physical findings indicative
of joint dysfunction 1 2 3 4 3 4 2
 (7.0, 1.1, I) (6- 6)
 - b. No continued biomechanical or
psychosocial stress, and:
 - i. No physical findings indicative
of joint dysfunction 8 1
 1 2 3 4 5 6 7 8 9
 (1.0, 0.4, A) (7- 7)
 - ii. Physical findings indicative
of joint dysfunction 1 2 3 4 5 6 7 8 3
 (8.0, 0.6, A) (8- 8)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 8
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), NO PRIOR
MANIPULATIVE TREATMENT, AND:

2. No neurological findings with sciatic nerve irritation, and:
- Continued biomechanical or psychosocial stress present, and:
 - No physical findings indicative of joint dysfunction 8 1
 (1.0, 0.3, A) 2 3 4 5 6 7 8 9
 - Physical findings indicative of joint dysfunction 1 2 3 4 2 3 3
 (7.0, 1.7, I) 1 2 3 4 5 6 7 8 9
 - No continued biomechanical or psychosocial stress, and:
 - No physical findings indicative of joint dysfunction 8 1
 (1.0, 0.4, A) 2 3 4 5 6 7 8 9
 - Physical findings indicative of joint dysfunction 1 2 3 4 1 5 3
 (8.0, 0.8, A) 1 2 3 4 5 6 7 8 9
 - Minor neurological findings, and no sciatic nerve irritation, and:
 - Continued biomechanical or psychosocial stress present, and:
 - No physical findings indicative of joint dysfunction 8 1
 (1.0, 0.3, A) 2 3 4 5 6 7 8 9
 - Physical findings indicative of joint dysfunction 1 2 3 4 2 4 2
 (7.0, 1.4, I) 1 2 3 4 5 6 7 8 9
 - No continued biomechanical or psychosocial stress, and:
 - No physical findings indicative of joint dysfunction 8 1
 (1.0, 0.4, A) 2 3 4 5 6 7 8 9
 - Physical findings indicative of joint dysfunction 1 2 3 4 1 4 3
 (8.0, 1.0, A) 1 2 3 4 5 6 7 8 9

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

CHAPTER 8
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), NO PRIOR
HANIPULATIVE TREATMENT, AND:

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4. Minor neurological findings, and
sciatic nerve irritation, and;
 - a. Continued biomechanical or
psychosocial stress present, and;
- i. No physical findings indicative
of joint dysfunction 8 1
 (1.0, 0.3, A) (17- 17)
- ii. Physical findings indicative
of joint dysfunction 1 2
 (7.0, 1.4, I) (18- 18)
- b. No continued biomechanical or
psychosocial stress, and;
 - i. No physical findings indicative
of joint dysfunction 7 1
 (1.0, 0.6, A) (19- 19)
 - ii. Physical findings indicative
of joint dysfunction 1 2
 (8.0, 1.3, I) (20- 20)
5. Major neurologic findings regardless
of remainder of exam 9 9
 (1.0, 0.0, A) (21- 21)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 8
 SPINAL MANIPULATION IS INDICATED IN PATIENTS
 WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
 MORE SINCE ONSET OF PAIN), NO PRIOR
 MANIPULATIVE TREATMENT, AND:

**C. LS SPINE RADIOGRAPHS SHOW NO
 CONTRAINDICATIONS AND IMAGING STUDIES
 SHOW NO HNP AND NO SPINAL STENOSIS,
 AND:**

- 1. No neurological findings, and no
 sciatic nerve irritation, and:
 - a. Continued biomechanical or
 psychosocial stress present, and:
 - i. No physical findings indicative
 of joint dysfunction 8 1
 (1.0, 0.3, A)
 - ii. Physical findings indicative
 of joint dysfunction 1 2 3 4 5 6 7 8 9
 (7.0, 1.1, I)
 - b. No continued biomechanical or
 psychosocial stress, and:
 - i. No physical findings indicative
 of joint dysfunction 7 1 1
 (1.0, 0.6, A)
 - ii. Physical findings indicative
 of joint dysfunction 1 2 3 4 5 6 7 8 9
 (8.0, 0.4, A)
- 2. No neurological findings with
 sciatic nerve irritation, and:
 - a. Continued biomechanical or
 psychosocial stress present, and:
 - i. No physical findings indicative
 of joint dysfunction 8 1
 (1.0, 0.3, A)
 - ii. Physical findings indicative
 of joint dysfunction 1 2 3 4 3 4
 (7.0, 1.1, I)
 - b. No continued biomechanical or
 psychosocial stress, and:
 - i. No physical findings indicative
 of joint dysfunction 7 1 1
 (1.0, 0.6, A)
 - ii. Physical findings indicative
 of joint dysfunction 1 2 3 4 5 6 7 8 9
 (8.0, 0.4, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 8 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN). NO PRIOR

Inappropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate.

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Chapter 8
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), NO PRIOR
MANIPULATIVE TREATMENT, AND:

D. LS SPINE RADIOGRAPHS SHOW NO
CONTRAINDICATIONS AND IMAGING STUDIES
SHOW POSTEROLATERAL HNP WITH NO FREE
FRAGMENT, NO SPINAL STENOSIS AND NO
CENTRAL HNP, AND:

- | | |
|--|--------------------------------------|
| 1. No neurological findings, and no sciatic nerve irritation, and: | |
| a. Continued biomechanical or psychosocial stress present, and: | |
| 1. No physical findings indicative of joint dysfunction | 8 1
(1.0, 0.3, A) |
| ii. Physical findings indicative of joint dysfunction | 1 2 3 4 5 6 7 8 9
(1.0, 0.9, A) |
| b. No continued biomechanical or psychosocial stress, and: | |
| 1. No physical findings indicative of joint dysfunction | 7 1 2 3 4 5 6 7 8 9
(1.0, 0.6, A) |
| ii. Physical findings indicative of joint dysfunction | 1 2 3 4 5 6 7 8 9
(8.0, 0.7, A) |
| 2. No neurological findings with sciatic nerve irritation, and: | |
| a. Continued biomechanical or psychosocial stress present, and: | |
| 1. No physical findings indicative of joint dysfunction | 8 1 2 3 4 5 6 7 8 9
(1.0, 0.3, A) |
| ii. Physical findings indicative of joint dysfunction | 1 1 2 3 4 5 6 7 8 9
(7.0, 1.3, D) |
| b. No continued biomechanical or psychosocial stress, and: | |
| 1. No physical findings indicative of joint dysfunction | 7 1 2 3 4 5 6 7 8 9
(1.0, 0.6, A) |
| ii. Physical findings indicative of joint dysfunction | 1 2 3 4 5 6 7 8 9
(8.0, 1.0, I) |

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 8
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), NO PRIOR
MANIPULATIVE TREATMENT, AND:

3. Minor neurological findings, and no
 sciatic nerve irritation, and:
- Continued biomechanical or
 psychosocial stress present, and:
 - No physical findings indicative
 of joint dysfunction 8 1
 (1.0, 0.3, A)
 - Physical findings indicative
 of joint dysfunction 1 2
 (7.0, 1.3, D)
 - No continued biomechanical or
 psychosocial stress, and:
 - No physical findings indicative
 of joint dysfunction 8 1
 (1.0, 0.4, A)
 - Physical findings indicative
 of joint dysfunction 1 2
 (8.0, 0.8, A)
4. Minor neurological findings, and
 sciatic nerve irritation, and:
- Continued biomechanical or
 psychosocial stress present, and:
 - No physical findings indicative
 of joint dysfunction 8 1
 (1.0, 0.3, A)
 - Physical findings indicative
 of joint dysfunction 1 2
 (7.0, 1.3, D)
 - No continued biomechanical or
 psychosocial stress, and:
 - No physical findings indicative
 of joint dysfunction 7 1
 (1.0, 0.6, A)
 - Physical findings indicative
 of joint dysfunction 1 2
 (8.0, 0.9, A)
5. Major neurologic findings regardless
 of remainder of exam 9 1
 (1.0, 0.0, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 8 SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN ("THREE MONTHS OR
MORE SINCE ONSET OF PAIN"), NO PRIOR
MANIPULATIVE TREATMENT, AND:

- E. LS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATION AND IMAGING STUDIES SHOW CENTRAL HNP OR SPINAL STENOSIS, OR FREE FRAGMENT, AND:
1. No neurological findings, and no sciatic nerve irritation, and:
 - a. Continued biomechanical or psychosocial stress present, and:
 - i. No physical findings indicative

8	1							
1	2	3	4	5	6	7	8	9
(1.0,	0.2,	A)						
 - ii. Physical findings indicative of joint dysfunction

1	1	1	1	4	1		
2	3	4	5	6	7	8	9
(6.0,	1.3,	I)					
 - b. No continued biomechanical or psychosocial stress, and:
 - i. No physical findings indicative of joint dysfunction

8	1							
1	2	3	4	5	6	7	8	9
(1.0,	0.3,	A)						
 - ii. Physical findings indicative of joint dysfunction

1	1	2	2	3	1		
2	3	4	5	6	7	8	9
(6.0,	1.1,	A)					
 2. No neurological findings with sciatic nerve irritation, and:
 - a. Continued biomechanical or psychosocial stress present, and:
 - i. No physical findings indicative of joint dysfunction

8	1							
1	2	3	4	5	6	7	8	9
(1.0,	0.2,	A)						
 - ii. Physical findings indicative of joint dysfunction

1	2	2	3	2			
2	3	4	5	6	7	8	9
(6.0,	1.6,	D)					
 - b. No continued biomechanical or psychosocial stress, and:
 - i. No physical findings indicative of joint dysfunction

8	1							
1	2	3	4	5	6	7	8	9
(1.0,	0.3,	A)						
 - ii. Physical findings indicative of joint dysfunction

1	1	1	1	3	1	2	
2	3	4	5	6	7	8	9
(6.0,	1.2,	I)					

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 8
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), NO PRIOR
MANIPULATIVE TREATMENT, AND:

- 3. Minor neurological findings, and no sciatic nerve irritation, and:
 - a. Continued biomechanical or psychosocial stress present, and:
 - i. No physical findings indicative 8 1
 (1.0, 0.2, A)
 - ii. Physical findings indicative of joint dysfunction 1 2 3 4 5 6 7 8 9
 (6.0, 1.4, I)
 - b. No continued biomechanical or psychosocial stress, and:
 - i. No physical findings indicative 8 1
 (1.0, 0.3, A)
 - ii. Physical findings indicative of joint dysfunction 1 2 3 4 5 6 7 8 9
 (6.0, 1.1, I)
- 4. Minor neurological findings, and sciatic nerve irritation, and:
 - a. Continued biomechanical or psychosocial stress present, and:
 - i. No physical findings indicative 8 1
 (1.0, 0.2, A)
 - ii. Physical findings indicative of joint dysfunction 1 1 1 3 2 1
 (6.0, 1.1, I)
 - b. No continued biomechanical or psychosocial stress, and:
 - i. No physical findings indicative 8 1
 (1.0, 0.3, A)
 - ii. Physical findings indicative of joint dysfunction 1 1 1 4 1
 (6.0, 1.6, I)
- 5. Major neurologic findings regardless of remainder of exam 9
 (1.0, 0.0, A)

Inappropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:

A1. NO LS SPINE RADIOGRAPHS AND NO EVIDENCE OF

JOINT DYSFUNCTION

1. No neurologic findings and no sciatic nerve irritation

8	1	1
1	2	3
2	3	4
3	5	6
4	7	8
5	8	9
6	1	1
7	2	3
8	4	5
9	5	6

(1.0, 0.3, A) (1.0, 0.2, A)

2. Minor neurologic findings or sciatic nerve irritation

8	1	1
1	2	3
2	3	4
3	5	6
4	7	8
5	8	9
6	1	1
7	2	3
8	4	5
9	5	6

(1.0, 0.3, A) (1.0, 0.2, A)

A2. NO LS SPINE RADIOGRAPHS AND EVIDENCE OF

JOINT DYSFUNCTION

1. No neurologic findings and no sciatic nerve irritation

5	3	1
1	2	3
2	3	4
3	5	6
4	7	8
5	9	9
6	1	1
7	2	3
8	4	5
9	6	7

(5.0, 1.1, A) (4.0, 1.6, I)

2. Minor neurologic findings or sciatic nerve irritation

1	1	1
1	2	3
2	3	4
3	5	6
4	7	8
5	9	9
6	1	1
7	2	3
8	4	5
9	6	7

(5.0, 1.8, D) (3.0, 1.6, I)

B. RESPONSE TO PRIOR MANIPULATION

Favorable

None or Unfavorable

(1- 2)

(1.0, 0.2)

(3- 4)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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	RESPONSE TO PRIOR MANIPULATION	
	Favorable	None or Unfavorable
SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:		
B. LS SPINE RADIOPHGRAPHS SHOW NO CONTRAINDICATIONS AND NO IMAGING STUDIES, AND:		
1. No neurological findings, and no sciatic nerve irritation, and:		
a. Continued biomechanical stress present, and:		
i. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (1.0, 0.9, 1) (1.0, 0.7, A)	(9- 10)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (7.0, 1.0, 1) (5.0, 1.2, D)	(11- 12)
b. Continued psychosocial stress present, and:		
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A) (1.0, 0.2, A)	(13- 14)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (6.0, 1.7, D) (5.0, 1.8, 1)	(15- 16)
c. No continued biomechanical or psychosocial stress, and:		
i. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (1.0, 0.8, 1) (1.0, 0.7, A)	(17- 18)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (8.0, 0.9, A) (5.0, 1.7, D)	(19- 20)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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		RESPONSE TO PRIOR MANIPULATION								
		Favorable				Unfavorable				
SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:										

**2. No neurological findings with
sciatic nerve irritation, and:**

**a. Continued biomechanical stress
present, and:**

1. No physical findings indicative of joint dysfunction	7 (1.0, 0.9, I)	1 (1.0, 0.9, I)	4 (1.0, 0.9, I)	5 (1.0, 0.9, I)	6 (1.0, 0.9, I)	7 (1.0, 0.9, I)	8 (1.0, 0.9, I)	9 (1.0, 0.9, I)	1 (1.0, 0.7, A)	2 (1.0, 0.7, A)	3 (1.0, 0.7, A)	4 (1.0, 0.7, A)	5 (1.0, 0.7, A)	6 (1.0, 0.7, A)	7 (1.0, 0.7, A)	8 (1.0, 0.7, A)	9 (1.0, 0.7, A)
ii. Physical findings indicative of joint dysfunction	1 (7.0, 1.2, I)	2 (7.0, 1.2, I)	3 (7.0, 1.2, I)	4 (7.0, 1.2, I)	5 (7.0, 1.2, I)	6 (7.0, 1.2, I)	7 (7.0, 1.2, I)	8 (7.0, 1.2, I)	9 (7.0, 1.2, I)	1 (5.0, 1.4, I)	2 (5.0, 1.4, I)	3 (5.0, 1.4, I)	4 (5.0, 1.4, I)	5 (5.0, 1.4, I)	6 (5.0, 1.4, I)	7 (5.0, 1.4, I)	8 (5.0, 1.4, I)
b. Continued psychosocial stress present, and:																	
1. No physical findings indicative of joint dysfunction	8 (1.0, 0.3, A)	2 (1.0, 0.3, A)	3 (1.0, 0.3, A)	4 (1.0, 0.3, A)	5 (1.0, 0.3, A)	6 (1.0, 0.3, A)	7 (1.0, 0.3, A)	8 (1.0, 0.3, A)	9 (1.0, 0.2, A)	1 (1.0, 0.2, A)	2 (1.0, 0.2, A)	3 (1.0, 0.2, A)	4 (1.0, 0.2, A)	5 (1.0, 0.2, A)	6 (1.0, 0.2, A)	7 (1.0, 0.2, A)	8 (1.0, 0.2, A)
ii. Physical findings indicative of joint dysfunction	1 (6.0, 2.1, D)	2 (6.0, 2.1, D)	3 (6.0, 2.1, D)	4 (6.0, 2.1, D)	5 (6.0, 2.1, D)	6 (6.0, 2.1, D)	7 (6.0, 2.1, D)	8 (6.0, 2.1, D)	9 (6.0, 2.1, D)	1 (2.0, 1.9, I)	2 (2.0, 1.9, I)	3 (2.0, 1.9, I)	4 (2.0, 1.9, I)	5 (2.0, 1.9, I)	6 (2.0, 1.9, I)	7 (2.0, 1.9, I)	8 (2.0, 1.9, I)
c. No continued biomechanical or psychosocial stress, and:																	
1. No physical findings indicative of joint dysfunction	7 (1.0, 0.8, I)	2 (1.0, 0.8, I)	3 (1.0, 0.8, I)	4 (1.0, 0.8, I)	5 (1.0, 0.8, I)	6 (1.0, 0.8, I)	7 (1.0, 0.8, I)	8 (1.0, 0.8, I)	9 (1.0, 0.8, I)	1 (1.0, 0.3, A)	2 (1.0, 0.3, A)	3 (1.0, 0.3, A)	4 (1.0, 0.3, A)	5 (1.0, 0.3, A)	6 (1.0, 0.3, A)	7 (1.0, 0.3, A)	8 (1.0, 0.3, A)
ii. Physical findings indicative of joint dysfunction	1 (7.0, 1.3, I)	2 (7.0, 1.3, I)	3 (7.0, 1.3, I)	4 (7.0, 1.3, I)	5 (7.0, 1.3, I)	6 (7.0, 1.3, I)	7 (7.0, 1.3, I)	8 (7.0, 1.3, I)	9 (7.0, 1.3, I)	1 (5.0, 1.7, I)	2 (5.0, 1.7, I)	3 (5.0, 1.7, I)	4 (5.0, 1.7, I)	5 (5.0, 1.7, I)	6 (5.0, 1.7, I)	7 (5.0, 1.7, I)	8 (5.0, 1.7, I)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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CHAPTER 9 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:	RESPONSE TO PRIOR MANIPULATION		
	Favorable	None or Unfavorable	
3. Minor neurological findings, and no sciatic nerve irritation, and:			
a. Continued biomechanical stress present, and:			
i. No physical findings indicative of joint dysfunction	7 (1.0, 0.9, I)	1 (1.0, 0.7, A)	(33- 34)
ii. Physical findings indicative of joint dysfunction	1 (7.0, 1.1, A)	2 (5.0, 1.3, I)	(35- 36)
b. Continued psychosocial stress present, and:			
i. No physical findings indicative of joint dysfunction	8 (1.0, 0.3, A)	1 (1.0, 0.2, A)	(37- 38)
ii. Physical findings indicative of joint dysfunction	1 (6.0, 2.0, D)	2 (2.0, 1.9, I)	(39- 40)
c. No continued biomechanical or psychosocial stress, and:			
i. No physical findings indicative of joint dysfunction	7 (1.0, 0.8, I)	1 (1.0, 0.6, A)	(41- 42)
ii. Physical findings indicative of joint dysfunction	1 (7.0, 1.0, A)	2 (5.0, 1.8, D)	(43- 44)

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Chapter 9

SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:

		RESPONSE TO PRIOR MANIPULATION								
		Favorable				None or Unfavorable				
4.	Minor neurological findings, and sciatic nerve irritation, and:									
a.	Continued biomechanical stress present, and:									
1.	No physical findings indicative of joint dysfunction	7	2	3	4	5	6	7	8	9
		(1.0,	0.9,	I)	(1.0,	0.9,	I)	(1.0,	0.6,	A)
11.	Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(7.0,	1.1,	A)	(7.0,	1.1,	A)	(5.0,	1.3,	I)
b.	Continued psychosocial stress present, and:									
1.	No physical findings indicative of joint dysfunction	8	2	3	4	5	6	7	8	9
		(1.0,	0.3,	A)	(1.0,	0.3,	A)	(1.0,	0.2,	A)
11.	Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(6.0,	2.0,	D)	(6.0,	2.0,	D)	(2.0,	1.8,	I)
c.	No continued biomechanical or psychosocial stress, and:									
1.	No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8
		(1.0,	0.4,	A)	(1.0,	0.4,	A)	(1.0,	0.2,	A)
11.	Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(7.0,	1.1,	A)	(7.0,	1.1,	A)	(5.0,	1.3,	I)
5.	Major neurologic findings regardless of remainder of exam	8	1	2	3	4	5	6	7	8
		(1.0,	0.1,	A)	(1.0,	0.1,	A)	(1.0,	0.0,	A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:

C. LS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS AND IMAGING STUDIES SHOW NO HNP AND NO SPINAL STENOSIS, AND:

1. No neurological findings, and no sciatic nerve irritation, and;

a. Continued biomechanical stress present, and;

	RESPONSE TO PRIOR MANIPULATION								
	Favorable				Unfavorable				
1.	1	2	3	4	5	6	7	8	9
i.	(1.0,	0.9,	I)						
ii.	1	2	3	4	5	6	7	8	9
b.	(7.0,	0.9,	A)						
c.	1	2	3	4	5	6	7	8	9
i.	(1.0,	0.3,	A)						
ii.	1	2	3	4	5	6	7	8	9
c.	(6.0,	1.7,	D)						
d.	1	2	3	4	5	6	7	8	9
i.	(1.0,	0.8,	I)						
ii.	1	2	3	4	5	6	7	8	9
e.	(8.0,	0.8,	A)						

(59- 60)

(61- 62)

(63- 64)

(65- 66)

(67- 68)

(69- 70)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE
TREATMENT, AND:

	RESPONSE TO PRIOR MANIPULATION									
	Favorable				None or Unfavorable					
2. No neurological findings with sciatic nerve irritation, and:										
a. Continued biomechanical stress present, and:										
i. No physical findings indicative of joint dysfunction	7	1	2	3	4	5	6	7	8	
ii. Physical findings indicative of joint dysfunction	1	(1.0,	0.8,	I)	1	(1.0,	0.6,	A)		(71- 72)
b. Continued psychosocial stress present, and:										
i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	9	
ii. Physical findings indicative of joint dysfunction	1	(1.0,	0.3,	A)	1	(1.0,	0.2,	A)		(75- 76)
c. No continued biomechanical or psychosocial stress, and:										
i. No physical findings indicative of joint dysfunction	7	1	2	3	4	5	6	7	8	
ii. Physical findings indicative of joint dysfunction	1	(1.0,	0.6,	A)	1	(1.0,	0.2,	A)		(79- 80)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:

		RESPONSE TO PRIOR MANIPULATION								
		Favorable				None or Unfavorable				
3.	Minor neurological findings, and no sciatic nerve irritation, and:									
a.	Continued biomechanical stress present, and:									
i.	No physical findings indicative of joint dysfunction	7	2	3	4	5	6	7	8	9
		(1.0,	0.	7,	I)			(1.0,	0.	A)
ii.	Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(7.0,	0.	9,	A)			(5.0,	1.	D)
b.	Continued psychosocial stress present, and:									
i.	No physical findings indicative of joint dysfunction	8	2	3	4	5	6	7	8	9
		(1.0,	0.	3,	A)			(1.0,	0.	A)
ii.	Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(6.0,	1.	7,	D)			(5.0,	1.	I)
c.	No continued biomechanical or psychosocial stress, and:									
i.	No physical findings indicative of joint dysfunction	7	1	2	3	4	5	6	7	8
		(1.0,	0.	6,	A)			(1.0,	0.	A)
ii.	Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(7.0,	0.	7,	A)			(5.0,	1.	D)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:

		RESPONSE TO PRIOR MANIPULATION	
		Favorable	None or Unfavorable
4.	Minor neurological findings, with sciatic nerve irritation, and:		
	a. Continued biomechanical stress present, and:		
1.	No physical findings indicative of joint dysfunction	7 (1.0, 0.8, I)	1 (1.0, 0.6, A)
ii.	Physical findings indicative of joint dysfunction	1 (7.0, 0.8, A)	1 (5.0, 1.1, I)
b. Continued psychosocial stress present, and:			
1.	No physical findings indicative of joint dysfunction	8 (1.0, 0.3, A)	1 (1.0, 0.2, A)
ii.	Physical findings indicative of joint dysfunction	1 (5.0, 1.7, D)	1 (5.0, 1.9, I)
c. No continued biomechanical or psychosocial stress, and:			
1.	No physical findings indicative of joint dysfunction	7 (1.0, 0.6, A)	1 (1.0, 0.2, A)
ii.	Physical findings indicative of joint dysfunction	1 (7.0, 0.4, A)	1 (5.0, 1.3, I)
5.	Major neurologic findings regardless of remainder of exam	8 (1.0, 0.1, A)	9 (1.0, 0.0, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE
TREATMENT, AND:

	RESPONSE TO PRIOR MANIPULATION	
	Favorable	None or Unfavorable
D. IS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS AND IMAGING STUDIES SHOW POSTEROLATERAL HNP WITH NO FREE FRAGMENT, NO SPINAL STENOSIS AND NO CENTRAL HNP, AND:		
I. No neurological findings, and no sciatic nerve irritation, and: a. Continued biomechanical stress present, and:	7 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (1.0, 0.9, I)	(1.0, 0.4, A)
i. No physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (7.0, 0.6, A)	(5.0, 1.8, D)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (7.0, 0.6, A)	(5.0, 1.8, D)
b. Continued psychosocial stress present, and:		
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	(1.0, 0.1, A)
ii. Physical findings indicative of joint dysfunction	1 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (5.0, 1.3, D)	(3.0, 1.9, I)
c. No continued biomechanical or psychosocial stress, and:		
i. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (1.0, 0.7, A)	(1.0, 0.1, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 (7.0, 0.3, A)	(6.0, 1.8, D)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 9 SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:	RESPONSE TO PRIOR MANIPULATION	
	None or Favorable	Unfavorable
2. No neurological findings with sciatic nerve irritation, and:		
a. Continued biomechanical stress present, and:		
1. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 (1.0, 0.8, I)	1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)
11. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.6, A)	1 2 3 4 5 6 7 8 9 (5.0, 1.7, I)
b. Continued psychosocial stress present, and:		
1. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)
11. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (5.0, 1.1, A)	3 1 1 2 1 1 2 1 1 2 1 1 2 3 4 5 6 7 8 9 (3.0, 1.7, I)
c. No continued biomechanical or psychosocial stress, and:		
1. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)
11. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.2, A)	1 1 1 2 3 4 5 6 7 8 9 (5.0, 1.6, I)

Appropriateness scale: I = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 9	RESPONSE TO PRIOR MANIPULATION	
SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:		
	None or Unfavorable	
3. Minor neurological findings, and no sciatic nerve irritation, and:		
a. Continued biomechanical stress present, and:		
i. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 (1.0, 0.9, I)	1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.4, A)	1 1 2 2 2 1 (5.0, 1.7, I)
b. Continued psychosocial stress present, and:		
i. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 (1.0, 0.1, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (6.0, 1.2, I)	3 1 1 (3.0, 1.8, I)
c. No continued biomechanical or psychosocial stress, and:		
i. No physical findings indicative of joint dysfunction	7 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	8 1 (1.0, 0.1, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 0.4, A)	2 5 2 (5.0, 1.8, I)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 9

SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:

		RESPONSE TO PRIOR MANIPULATION								
		None or Favorable				Unfavorable				
4.	Minor neurologic findings, and sciatic nerve irritation, and:									
a.	Continued biomechanical stress present, and:									
1.	No physical findings indicative of joint dysfunction	7	2	3	4	5	6	7	8	9
		(11.0,	0.9,	I)						
11.	Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(6.0,	0.4,	A)						
b.	Continued psychosocial stress present, and:									
i.	No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8
		(11.0,	0.4,	A)						
ii.	Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(6.0,	1.2,	I)						
c.	No continued biomechanical or psychosocial stress, and:									
1.	No physical findings indicative of joint dysfunction	7	1	2	3	4	5	6	7	8
		(11.0,	0.6,	A)						
11.	Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(7.0,	0.6,	A)						
5.	Major neurologic findings regardless of remainder of exam	9	9	1	2	3	4	5	6	7
		(11.0,	0.0,	A)						

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 9

		RESPONSE TO PRIOR MANIPULATION									
		Favorable				Unfavorable					
E. LS SPINE RADIOPHGRAPHS SHOW NO CONTRAINDICATION AND IMAGING STUDIES SHOW CENTRAL HNP OR SPINAL STENOSIS, OR FREE FRAGMENT, AND:		None or									
1. No neurological findings, and no sciatic nerve irritation, and:		Unfavorable									

a. Continued biomechanical stress

present, and:

1. No physical findings indicative of joint dysfunction	7 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	7 2 3 4 5 6 7 8 9 (1.0, 0.2, A)	(159-160)
11. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (6.0, 1.0, I)	3 2 1 1 1 1 1 1 1 (4.0, 2.0, I)	(161-162)
b. Continued psychosocial stress present, and:			
1. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	(163-164)
11. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (5.0, 1.6, I)	5 1 2 3 4 5 6 7 8 9 (1.0, 1.8, I)	(165-166)
c. No continued biomechanical or psychosocial stress, and:			
1. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.4, A)	8 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	(167-168)
11. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 1.1, D)	3 1 2 3 4 5 6 7 8 9 (5.0, 2.0, I)	(169-170)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 9

		RESPONSE TO PRIOR MANIPULATION								
SPINAL MANIPULATION IS INDICATED IN PATIENTS		Favorable				None or Unfavorable				
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:										
2. No neurological findings with sciatic nerve irritation, and:										
a. Continued biomechanical stress present, and:										

i. No physical findings indicative
of joint dysfunction

7 1 1
1 2 3 4 5 6 7 8 9
(1.0, 0.6, A)

ii. Physical findings indicative
of joint dysfunction

1 2 3 4 5 6 7 8 9
(6.0, 0.9, I)

b. Continued psychosocial stress
present, and:

i. No physical findings indicative
of joint dysfunction

8 1
1 2 3 4 5 6 7 8 9
(1.0, 0.3, A)

ii. Physical findings indicative
of joint dysfunction

1 2 3 4 2 3 1
(5.0, 1.4, I)

c. No continued biomechanical or
psychosocial stress, and:

i. No physical findings indicative
of joint dysfunction

8 1
1 2 3 4 5 6 7 8 9
(1.0, 0.4, A)

ii. Physical findings indicative
of joint dysfunction

1 2 3 4 5 6 7 8 9
(7.0, 1.3, D)

(171-172)
(173-174)
(175-176)
(177-178)
(179-180)
(181-182)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 9

		RESPONSE TO PRIOR MANIPULATION											
SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:		Favorable				None or Unfavorable							
3. Minor neurological findings, and no sciatic nerve irritation, and: a. Continued biomechanical stress present, and:	i. No physical findings indicative of joint dysfunction	7	1	1	1	2	3	4	5	6	7	8	9
		(1.0,	0.	6,	A)	(1.0,	0.	2,	A)				
	ii. Physical findings indicative of joint dysfunction	1	1	1	3	3	3	2	1	1	1		
		(2.3	4	5	6	7	8	9	1	2	3	4	5
b. Continued psychosocial stress present, and:	i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8	9		
		(1.0,	0.	3,	A)	(1.0,	0.	1,	A)				
	ii. Physical findings indicative of joint dysfunction	1	2	2	3	1	5	6	7	8	9		
		(5.0,	1.	4,	I)	(5.0,	1.	7,	I)				
c. No continued biomechanical or psychosocial stress, and:	i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8	9		
		(1.0,	0.	4,	A)	(1.0,	0.	1,	A)				
	ii. Physical findings indicative of joint dysfunction	1	2	2	3	2	3	2	1	1			
		(7.0,	1.	3,	D)	(7.0,	1.	9,	I)				

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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		RESPONSE TO PRIOR MANIPULATION								
		Favorable				None or Unfavorable				
SPINAL MANIPULATION IS INDICATED IN PATIENTS WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR MORE SINCE ONSET OF PAIN), PRIOR MANIPULATIVE TREATMENT, AND:										
4.	Minor neurologic findings, and sciatic nerve irritation, and: a. Continued biomechanical stress present, and:									
	i. No physical findings indicative of joint dysfunction	7	2	3	4	5	6	7	8	9
		(1.0,	0.4,	A)						
	ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(6.0,	1.0,	I)						
	b. Continued psychosocial stress present, and:									
	i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8
		(1.0,	0.2,	A)						
	ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(5.0,	1.4,	I)						
	c. No continued biomechanical or psychosocial stress, and:									
	i. No physical findings indicative of joint dysfunction	8	1	2	3	4	5	6	7	8
		(1.0,	0.3,	A)						
	ii. Physical findings indicative of joint dysfunction	1	2	3	4	5	6	7	8	9
		(6.0,	1.2,	D)						
	5. Major neurologic findings regardless of remainder of exam	9	1	2	3	4	5	6	7	8
		(1.0,	0.0,	A)						

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SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

A1. NO LS SPINE RADIOGRAPHS AND NO EVIDENCE OF
JOINT DYSFUNCTION

- 1. No neurologic findings and
no sciatic nerve irritation 8 1 2 3 4 5 6 7 8 9
(1.0, 0.2, A) (1- 1)
 - 2. Minor neurologic findings or
sciatic nerve irritation 8 1 2 3 4 5 6 7 8 9
(1.0, 0.2, A) (2- 2)
- A2. NO LS SPINE RADIOGRAPHS AND EVIDENCE OF
JOINT DYSFUNCTION
- 1. No neurologic findings and
no sciatic nerve irritation 4 1 1 1 1 1
1 2 3 4 5 6 7 8 9
(2.0, 1.6, I) (3- 3)
 - 2. Minor neurologic findings or
sciatic nerve irritation 4 1 1 1 1
1 2 3 4 5 6 7 8 9
(2.0, 1.6, I) (4- 4)

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Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

B. LS SPINE RADIOGRAPHS SHOW NO
CONTRAINdicATIONS AND NO IMAGING
STUDIES, AND:

- 1. No neurological findings, and no
sciatic nerve irritation, and:
 - a. Continued biomechanical stress
present, and:
 - i. No physical findings indicative 8 1
of joint dysfunction 1 2 3 4 5 6 7 8 9
(1.0, 0.2, A)
 - ii. Physical findings indicative 1 2 3 4 5 6 7 8 9
of joint dysfunction 1 2 3 4 5 6 7 8 9
(7.0, 1.3, A)
 - b. Continued psychosocial stress
present, and:
 - i. No Physical findings indicative 8 1
of joint dysfunction 1 2 3 4 5 6 7 8 9
(1.0, 0.2, A)
 - ii. Physical findings indicative 1 2 1 1
of joint dysfunction 1 2 3 4 5 6 7 8 9
(6.0, 2.2, D)
 - c. No continued biomechanical or
psychosocial stress, and:
 - i. No Physical findings indicative 8 1
of joint dysfunction 1 2 3 4 5 6 7 8 9
(1.0, 0.4, A)
 - ii. Physical findings indicative 1 2 3 4 5 6 7 8 9
of joint dysfunction 1 2 3 4 5 6 7 8 9
(8.0, 1.3, I)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

- 2. No neurological findings with sciatic nerve irritation, and:
 - a. Continued biomechanical stress present, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.3, A) (11- 11)
 - ii. Physical findings indicative of joint dysfunction 1 1 2 3 4 5 6 7 8 9
(7.0, 1.6, I) (12- 12)
 - b. Continued psychosocial stress present, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.3, A) (13- 13)
 - ii. Physical findings indicative of joint dysfunction 1 1 2 3 4 5 6 7 8 9
(6.0, 2.3, D) (14- 14)
 - c. No continued biomechanical or psychosocial stress, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.4, A) (15- 15)
 - ii. Physical findings indicative of joint dysfunction 1 1 2 3 4 5 6 7 8 9
(8.0, 1.4, I) (16- 16)

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**CHAPTER 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:**

3. Minor neurological findings, and no
sciatic nerve irritation, and:
- a. Continued biomechanical stress
present, and:
 - i. No physical findings indicative
of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.3, A)
 - ii. Physical findings indicative
of joint dysfunction 1 1 1 1 3 1 1
1 2 3 4 5 6 7 8 9
(7.0, 1.7, D)
 - b. Continued Psychosocial stress
Present, and:
 - i. No physical findings indicative
of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.3, A)
 - ii. Physical findings indicative
of joint dysfunction 1 1 3 1 3 1 1
1 2 3 4 5 6 7 8 9
(7.0, 2.3, D)
 - c. No continued biomechanical or
Psychosocial stress, and:
 - i. No physical findings indicative
of joint dysfunction 8 1 2 3 4 1 5 6 7 8 9
(1.0, 0.4, A)
 - ii. Physical findings indicative
of joint dysfunction 1 1 2 3 1 1 2 3 1
1 2 3 4 5 6 7 8 9
(7.0, 1.6, I)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

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4. Minor neurological findings, and
sciatic nerve irritation, and:
 - a. Continued biomechanical stress
present, and:
 - i. No physical findings indicative
of joint dysfunction 8 1
 (1.0, 0.3, A) (23- 23)
 - ii. Physical findings indicative
of joint dysfunction 1 2
 (7.0, 1.8, D) (24- 24)
 - b. Continued psychosocial stress
present, and:
 - i. No physical findings indicative
of joint dysfunction 8 1
 (1.0, 0.3, A) (25- 25)
 - ii. Physical findings indicative
of joint dysfunction 1 1
 (7.0, 2.4, D) (26- 26)
 - c. No continued biomechanical or
psychosocial stress, and:
 - i. No physical findings indicative
of joint dysfunction 8 1
 (1.0, 0.4, A) (27- 27)
 - ii. Physical findings indicative
of joint dysfunction 1 1
 (7.0, 1.7, D) (28- 28)
5. Major neurologic findings regardless
of remainder of exam 9 9
 (1.0, 0.0, A) (29- 29)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

C. LS SPINE RADICOGRAHS SHOW NO CONTRAINDICATIONS AND IMAGING STUDIES SHOW NO HNP AND NO SPINAL STENOSIS, AND POSTERIOR FACETS INTACT, AND:	
1. No neurological findings, and no sciatic nerve irritation, and:	
a. Continued biomechanical stress Present, and:	
1. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (7.0, 1.2, A)
b. Continued psychosocial stress Present, and:	
1. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.3, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (6.0, 2.1, D)
c. No continued biomechanical or psychosocial stress, and:	
1. No physical findings indicative of joint dysfunction	8 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)
ii. Physical findings indicative of joint dysfunction	1 2 3 4 5 6 7 8 9 (8.0, 1.2, A)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND

- | | |
|---|---|
| neurological findings with
radicular nerve irritation, and;
Continued biomechanical stress
present, and; | |
| 1. No physical findings indicative
of joint dysfunction | 8 1
1 2 3 4 5 6 7 8 9
(1.0, 0.3, A) |
| 14. Physical findings indicative
of joint dysfunction | 1 1
1 2 3 4 5 6 7 8 9
(7.0, 1.3, A) |
| Continued psychosocial stress
present, and; | |
| 1. No physical findings indicative
of joint dysfunction | 8 1
1 2 3 4 5 6 7 8 9
(1.0, 0.3, A) |
| 14. Physical findings indicative
of joint dysfunction | 1 2 1 1 2 1 1
1 2 3 4 5 6 7 8 9
(6.0, 2.1, D) |
| No continued biomechanical or
psychosocial stress, and; | |
| 1. No physical findings indicative
of joint dysfunction | 8 1
1 2 3 4 5 6 7 8 9
(1.0, 0.6, A) |
| 14. Physical findings indicative
of joint dysfunction | 1 1 4 2 2
1 2 3 4 5 6 7 8 9
(7.0, 1.2, A) |

Inappropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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CHAPTER 10
**SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND,**

- Minor neurological findings, and no sciatic nerve irritation, and;
 - a. Continued biomechanical stress present, and;
 - i. No physical findings indicative of joint dysfunction 1 2 3 4 5 6 7 8 9
(1.0, 0.3, A) (42- 42)
 - ii. Physical findings indicative of joint dysfunction 1 2 3 4 1 2 3 1 1
1 2 3 4 5 6 7 8 9
(7.0, 1.3, I) (43- 43)
 - b. Continued psychosocial stress present, and;
 - i. No physical findings indicative of joint dysfunction 1 2 3 4 1 5 6 7 8 9
(1.0, 0.3, A) (44- 44)
 - ii. Physical findings indicative of joint dysfunction 1 2 1 1 2 1 1
1 2 3 4 5 6 7 8 9
(6.0, 2.2, D) (45- 45)
 - c. No continued biomechanical or psychosocial stress, and;
 - i. No physical findings indicative of joint dysfunction 1 2 3 4 1 5 6 7 8 9
(1.0, 0.6, A) (46- 46)
 - ii. Physical findings indicative of joint dysfunction 1 2 3 4 1 3 3 1
1 2 3 4 5 6 7 8 9
(7.0, 1.2, A) (47- 47)

Inappropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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CHAPTER 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

4. Minor neurological findings, with sciatic nerve irritation, and:
 - a. Continued biomechanical stress present, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.3, A) (48- 48)
 - ii. Physical findings indicative of joint dysfunction 1 2 3 4 5 6 7 8 9
(7.0, 1.4, I) (49- 49)
 - b. Continued psychosocial stress present, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.3, A) (50- 50)
 - ii. Physical findings indicative of joint dysfunction 1 2 3 4 5 6 7 8 9
(7.0, 2.3, D) (51- 51)
 - c. No continued biomechanical or psychosocial stress, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.6, A) (52- 52)
 - ii. Physical findings indicative of joint dysfunction 1 2 3 4 5 6 7 8 9
(7.0, 1.3, I) (53- 53)
5. Major neurologic findings regardless of remainder of exam 9 1 2 3 4 5 6 7 8 9
(1.0, 0.0, A) (54- 54)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

- D. LS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATIONS AND IMAGING STUDIES SHOW POSTEROLATERAL HNP WITH NO FREE FRAGMENT, NO SPINAL STENOSIS, NO CENTRAL HNP, AND POSTERIOR FACETS INTACT, AND:
1. No neurological findings, and no sciatic nerve irritation, and:
 - a. Continued biomechanical stress present, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.1, A)
 - ii. Physical findings indicative of joint dysfunction 1 1 2 3 4 5 6 7 8 1
(6.0, 1.7, I)
 - b. Continued psychosocial stress present, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.1, A)
 - ii. Physical findings indicative of joint dysfunction 1 1 2 3 4 5 6 7 8 1
(5.0, 2.2, D)
 - c. No continued biomechanical or psychosocial stress, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.2, A)
 - ii. Physical findings indicative of joint dysfunction 1 1 2 3 4 5 6 7 8 2
(6.0, 1.7, I)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

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2. No neurological findings with sciatic nerve irritation, and:
 - a. Continued biomechanical stress present, and:
 - i. No physical findings indicative of joint dysfunction

8	1							
1	2	3	4	5	6	7	8	9
(1.0,	0.1,	A)						
 - ii. Physical findings indicative of joint dysfunction

1	1	1	2	1	2	1		
1	2	3	4	5	6	7	8	9
(6.0,	1.8,	D)						
 - b. Continued psychosocial stress present, and:
 - i. No physical findings indicative of joint dysfunction

8	1							
1	2	3	4	5	6	7	8	9
(1.0,	0.1,	A)						
 - ii. Physical findings indicative of joint dysfunction

1	2	3	4	1	2	1	1	1
1	2	3	4	5	6	7	8	9
(6.0,	2.2,	D)						
 - c. No continued biomechanical or psychosocial stress, and:
 - i. No physical findings indicative of joint dysfunction

8	1							
1	2	3	4	5	6	7	8	9
(1.0,	0.2,	A)						
 - ii. Physical findings indicative of joint dysfunction

1	2	3	4	1	1	3	1	2
(7.0,	1.7,	I)						

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

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Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

3. Minor neurological findings, and no
sciatic nerve irritation, and:
 a. Continued biomechanical stress
present, and:
 i. No physical findings indicative 8 1
 1 2 3 4 5 6 7 8 9
 (1.0, 0.1, A) (67- 67)
 ii. Physical findings indicative 1 1
 1 2 3 4 5 6 7 8 9
 (6.0, 1.7, D) (68- 68)
 b. Continued psychosocial stress
present, and:
 i. No physical findings indicative 8 1
 1 2 3 4 5 6 7 8 9
 (1.0, 0.1, A) (69- 69)
 ii. Physical findings indicative 1 2
 1 2 3 4 5 6 7 8 9
 (6.0, 2.2, D) (70- 70)
 c. No continued biomechanical or
psychosocial stress, and:
 i. No physical findings indicative 8 1
 1 2 3 4 5 6 7 8 9
 (1.0, 0.2, A) (71- 71)
 ii. Physical findings indicative 1 2
 1 2 3 4 5 6 7 8 9
 (6.0, 1.7, I) (72- 72)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

- 4. Minor neurological findings, and**
sciatic nerve irritation, and;
- a. Continued biomechanical stress**
present, and:
 - i. No physical findings indicative** 8 1
of joint dysfunction 1 2 3 4 5 6 7 8 9
(1.0, 0.1, A)
 - ii. Physical findings indicative** 2 1 2 1 1
of joint dysfunction 1 2 3 4 5 6 7 8 9
(6.0, 1.9, D)
 - b. Continued psychosocial stress**
present, and;
 - i. No physical findings indicative** 8 1
of joint dysfunction 1 2 3 4 5 6 7 8 9
(1.0, 0.1, A)
 - ii. Physical findings indicative** 1 2 1 1 2 1 1
of joint dysfunction 1 2 3 4 5 6 7 8 9
(6.0, 2.3, D)
 - c. No continued biomechanical or**
psychosocial stress, and;
 - i. No physical findings indicative** 8 1
of joint dysfunction 1 2 3 4 5 6 7 8 9
(1.0, 0.2, A)
 - ii. Physical findings indicative** 1 1 1 2 1 2 1
of joint dysfunction 1 2 3 4 5 6 7 8 9
(6.0, 1.8, D)
- 5. Major neurologic findings regardless**
of remainder of exam 9 1
(1.0, 0.0, A)

MAY 1991

Inappropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

May 1991

Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

- F. LS SPINE RADIOGRAPHS SHOW NO CONTRAINDICATION AND IMAGING STUDIES SHOW CENTRAL HNP OR SPINAL STENOSIS, OR FREE FRAGMENT OR POSTERIOR FACETS NOT INTACT, AND:
1. No neurological findings, and no sciatic nerve irritation, and:
 - a. Continued biomechanical stress present, and:
 - i. No physical findings indicative of joint dysfunction
 - b. Continued psychosocial stress present, and:
 - i. No physical findings indicative of joint dysfunction
 - ii. Physical findings indicative of joint dysfunction
 - c. No continued biomechanical or psychosocial stress, and:
 - i. No physical findings indicative of joint dysfunction
 - ii. Physical findings indicative of joint dysfunction
- | | | | |
|-----|--|---|------------|
| 1. | No physical findings indicative
of joint dysfunction | 8 1
1 2 3 4 5 6 7 8 9
(1.0, 0.1, A) | (80- 80) |
| ii. | Physical findings indicative
of joint dysfunction | 2 1
1 2 3 4 5 6 7 8 9
(5.0, 1.4, I) | (81- 81) |
| b. | Continued psychosocial stress
present, and: | | |
| i. | No physical findings indicative
of joint dysfunction | 8 1
1 2 3 4 5 6 7 8 9
(1.0, 0.1, A) | (82- 82) |
| ii. | Physical findings indicative
of joint dysfunction | 2 2
1 2 3 4 5 6 7 8 9
(5.0, 1.7, I) | (83- 83) |
| c. | No continued biomechanical or
psychosocial stress, and: | | |
| i. | No physical findings indicative
of joint dysfunction | 8 1
1 2 3 4 5 6 7 8 9
(1.0, 0.2, A) | (84- 84) |
| ii. | Physical findings indicative
of joint dysfunction | 2 1
1 2 3 4 5 6 7 8 9
(5.0, 1.4, I) | (85- 85) |

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

MAY 1982.

CHAPTER 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

2. No neurological findings with
sciatic nerve irritation, and:
 a. Continued biomechanical stress
present, and:
 i. No physical findings indicative 6 (86- 86)
 1 2 3 4 5 6 7 8 9
 (1.0, 0.1, A)
 ii. Physical findings indicative 2 (86- 87)
 1 2 3 4 3 2 1
 (5.0, 1.7, I)
 b. Continued psychosocial stress
present, and:
 i. No physical findings indicative 8 (88- 88)
 1 2 3 4 5 6 7 8 9
 (1.0, 0.1, A)
 ii. Physical findings indicative 2 (89- 89)
 1 2 3 4 3 1 1
 (5.0, 1.9, I)
 c. No continued biomechanical or
psychosocial stress, and:
 i. No physical findings indicative 8 (90- 90)
 1 2 3 4 5 6 7 8 9
 (1.0, 0.2, A)
 ii. Physical findings indicative 2 (91- 91)
 1 2 3 4 3 2 1
 (5.0, 1.6, I)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

MAY 1991

CHAPTER 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

- 3. Minor neurological findings, and no sciatic nerve irritation, and:
 - a. Continued biomechanical stress present, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.1, A)
 - ii. Physical findings indicative of joint dysfunction 2 1 2 3 4 5 6 7 8 9
(5.0, 1.8, I)
 - b. Continued psychosocial stress present, and:
 - i. No Physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.1, A)
 - ii. Physical findings indicative of joint dysfunction 2 2 3 4 3 1 1
(5.0, 1.9, I)
 - c. No continued biomechanical or psychosocial stress, and:
 - i. No physical findings indicative of joint dysfunction 8 1 2 3 4 5 6 7 8 9
(1.0, 0.2, A)
 - ii. Physical findings indicative of joint dysfunction 2 1 1 2 2 1
(5.0, 1.7, I)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

May 1991

Chapter 10
SPINAL MANIPULATION IS INDICATED IN PATIENTS
WITH CHRONIC LOW BACK PAIN (THREE MONTHS OR
MORE SINCE ONSET OF PAIN), PRIOR LAMINECTOMY,
AND:

4. Minor neurological findings, and
sciatic nerve irritation, and:
 - a. Continued biomechanical stress
Present, and:
 - i. No physical findings indicative 8 1
 1 2 3 4 5 6 7 8 9
 (1.0, 0.1, A)
 - ii. Physical findings indicative 2 1
 1 2 3 4 5 6 7 8 9
 (5.0, 1.7, I)
 - b. Continued psychosocial stress
Present, and:
 - i. No physical findings indicative 8 1
 1 2 3 4 5 6 7 8 9
 (1.0, 0.1, A)
 - ii. Physical findings indicative 2 2
 1 2 3 4 5 6 7 8 9
 (5.0, 1.9, I)
 - c. No continued biomechanical or
psychosocial stress, and:
 - i. No physical findings indicative 8 1
 1 2 3 4 5 6 7 8 9
 (1.0, 0.2, A)
 - ii. Physical findings indicative 2 1
 1 2 3 4 5 6 7 8 9
 (5.0, 1.7, I)
5. Major neurologic findings regardless
of remainder of exam 9
 (1.0, 0.0, A)

Appropriateness scales: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Appendix D
OTHER CONSIDERATIONS

Chapter 11
SPINAL MANIPULATION IS INDICATED
IN A PATIENT WHO HAS AN OTHERWISE
INAPPROPRIATE INDICATION, AND:

		May 1991
A. POSSIBLE CLOTTING DISORDER		
1. Without prothrombin time	2 1 3 1 1 1 1 2 3 4 5 6 7 8 9 (3.0, 1.6, I)	(1- 1)
2. With normal prothrombin time	1 2 3 4 2 6 1 (7.0, 0.4, A)	(2- 2)
3. With greater than normal prothrombin time	2 2 2 1 1 2 3 4 5 6 7 8 9 (3.0, 1.6, I)	(3- 3)
B. POSSIBLE ABDOMINAL AORTIC ANEURYSM		
1. Vascular calcifications on lumbosacral radiography, no definite aneurysmal pattern	1 2 3 4 5 3 1 (5.0, 1.1, A)	(4- 4)
2. Vascular calcifications on lumbosacral radiography, suggestive of aneurysmal dilatation	7 1 1 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	(5- 5)
3. Suspected by physical exam	6 1 2 1 2 3 4 5 6 7 8 9 (1.0, 0.6, A)	(6- 6)
C. DEFINITE ABDOMINAL AORTIC ANEURYSM, BY HISTORY OR IMAGING STUDY	8 1 1 2 3 4 5 6 7 8 9 (1.0, 0.1, A)	(7- 7)
D. REPAIRED ABDOMINAL AORTIC ANEURYSM	1 2 3 4 2 2 3 (6.0, 1.4, D)	(8- 8)
E1. SPONDYLOLISTHESIS WITH NO MINOR NEUROLOGIC FINDINGS		
1. 18 or younger	1 4 1 3 1 2 3 4 5 6 7 8 9 (7.0, 0.9, A)	(9- 9)
a. Grade I		
b. Grade II	1 2 3 4 1 1 4 2 1 (7.0, 0.8, A)	(10- 10)
c. Grade III	1 2 3 4 3 3 2 1 (5.0, 0.9, A)	(11- 11)
d. Grade IV	6 1 1 1 1 2 3 4 5 6 7 8 9 (3.0, 0.8, A)	(12- 12)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Chapter 11
SPINAL MANIPULATION IS INDICATED
IN A PATIENT WHO HAS AN OTHERWISE
APPROPRIATE INDICATION, AND:

2. 19 or older		3 3 3	(13- 13)
a. Grade I	1 2 3 4 5 6 7 8 9 (8.0, 0.7, A)		
b. Grade II	1 2 3 4 2 1 5 1 (8.0, 0.7, A)		(14- 14)
c. Grade III	1 2 3 4 5 6 7 8 9 (5.0, 1.1, A)		(15- 15)
d. Grade IV	1 3 2 2 1 (4.0, 1.3, I)		(16- 16)
E2 SPONDYLOLISTHESIS WITH MINOR NEUROLOGIC FINDINGS			
1. 18 or younger	1 2 3 1 5 6 7 8 9 (7.0, 1.1, I)		(17- 17)
a. Grade I	1 1 1 1 5 (7.0, 1.4, D)		
b. Grade II	1 2 3 4 5 6 7 8 9 (3.0, 0.8, I)		(18- 18)
c. Grade III	1 1 5 2 (1.0, 0.9, A)		(19- 19)
d. Grade IV	5 2 1 1 2 3 4 5 6 7 8 9 (1.0, 0.9, A)		(20- 20)
2. 19 or older	1 2 3 4 1 5 1 1 (7.0, 1.2, I)		(21- 21)
a. Grade I	1 2 3 4 5 6 7 8 9 (7.0, 1.4, I)		
b. Grade II	1 2 3 4 5 6 7 8 9 (2.0, 1.1, I)		(22- 22)
c. Grade III	1 2 3 4 5 6 7 8 9 (3.0, 1.0, A)		(23- 23)
d. Grade IV	4 2 1 1 1 2 3 4 5 6 7 8 9 (2.0, 1.1, I)		(24- 24)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

May 1991

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Chapter 11
SPINAL MANIPULATION IS INDICATED
IN A PATIENT WHO HAS AN OTHERWISE
APPROPRIATE INDICATION, AND:

F. RADIOGRAPHIC CONTRAINDICATIONS TO
SPINAL MANIPULATION

9
1 2 3 4 5 6 7 8 9
(1.0, 0.0, A)

(25- 25)

Appropriateness scale: 1 = extremely inappropriate, 5 = equivocal, 9 = extremely appropriate

Appendix E

TREATMENT FREQUENCY SUMMARY

The following is a summary of the frequency of treatment, or treatment duration, which the panelists felt spinal manipulation should be given for appropriate indications. The data are presented on a copy of the form the panelists used. The value listed is the mean of the responses for that particular indication.

In the context of this discussion, the panelists also unanimously agreed on the following:

An adequate trial of spinal manipulation is a course of twelve manipulations given over a period of up to four weeks, after which, in the absence of documented improvement, spinal manipulation is no longer indicated.

TREATMENT DURATION FOR PATIENTS WITH ACUTE LOW BACK PAIN

You have just completed rating the appropriateness of spinal manipulation for patients with acute low back pain. Another issue of critical importance in judging the appropriateness of manipulation in this setting is the quantity or duration of treatment. Therefore, this next exercise asks for your expert clinical judgment in addressing this issue.

For the patient with an appropriate indication in each of the following general categories, please indicate:

- 1) the **NUMBER** of manipulations needed for the **AVERAGE** patient to achieve a substantial clinical response
- 2) the **NUMBER** of subsequent manipulations (if any) that are needed for the average patient to reach the maximal therapeutic benefit
- 3) the **NUMBER of PATIENTS** out of 100 that would need more than twice the number of manipulations listed in 1.

	<u>SUBSTANTIAL CLINICAL RESPONSE</u>	<u>MAXIMAL THERAPEUTIC BENEFIT</u>	<u>NUMBER OF PATIENTS NEEDING MORE THAN TWICE AVERAGE</u>
A. Patient has no neurologic findings, no sciatic nerve irritation, AND no radiographs (or radiographs show no contraindication) AND no imaging studies (or imaging studies show no HNP and no spinal stenosis):	5	11	11
B. Patient has no neurologic findings, no sciatic nerve irritation, AND radiographs show no contraindication, AND imaging studies show posterolateral HNP with no free fragment, no spinal stenosis and no central HNP:	8	17	12
C. Patient has no neurologic findings, no sciatic nerve irritation, AND radiographs show no contraindication, AND imaging studies show central HNP or spinal stenosis, or free fragment:	8	11	14

	<u>SUBSTANTIAL CLINICAL RESPONSE</u>	<u>MAXIMAL THERAPEUTIC BENEFIT</u>	<u>NUMBER OF PATIENTS NEEDING MORE THAN TWICE AVERAGE</u>
D. Patient has no neurologic findings, with sciatic nerve irritation, AND radiographs show no contraindication, AND no imaging studies (or imaging studies show no HNP and no spinal stenosis):	7	15	15
E. Patient has no neurologic findings, with sciatic nerve irritation, AND radiographs show no contraindication, AND imaging studies show posterolateral HNP with no free fragment, no spinal stenosis and no central HNP:	11	20	15
F. Patient has no neurologic findings, with sciatic nerve irritation, AND radiographs show no contraindication, AND imaging studies show central HNP or spinal stenosis, or free fragment:	10	17	14
G. Patient has minor neurologic findings, no sciatic nerve irritation, AND radiographs show no contraindication, AND no imaging studies (or imaging studies show no HNP and no spinal stenosis):	10	18	15
H. Patient has minor neurologic findings, no sciatic nerve irritation, AND radiographs show no contraindication, AND imaging studies show posterolateral HNP, no free fragment, no spinal stenosis and no central HNP:	11	22	15
I. Patient has minor neurologic findings, no sciatic nerve irritation, AND radiographs show no contraindication, AND imaging studies show central HNP or spinal stenosis, free fragment:	8	19	12

	<u>SUBSTANTIAL CLINICAL RESPONSE</u>	<u>MAXIMAL THERAPEUTIC BENEFIT</u>	<u>NUMBER OF PATIENTS NEEDING MORE THAN TWICE AVERAGE</u>
J. Patient has minor neurologic findings, with sciatic nerve irritation, AND radiographs show no contraindication, AND no imaging studies (or imaging studies show no HNP and no spinal stenosis):	11	21	15
K. Patient has minor neurologic findings, with sciatic nerve irritation, AND radiographs show no contraindication, AND imaging studies show posterolateral HNP, no free fragment, no spinal stenosis and no central HNP:	12	24	15
L. Patient has minor neurologic findings, with sciatic nerve irritation, AND radiographs show no contraindication, AND imaging studies show central HNP or spinal stenosis, free fragment:	11	21	12

TREATMENT DURATION FOR PATIENTS WITH CHRONIC LOW BACK PAIN

You have just completed rating the appropriateness of spinal manipulation for patients with chronic low back pain. Another issue of critical importance in this setting is the intensity and duration of treatment. Therefore, this next exercise asks for your expert clinical judgment in addressing this issue.

For the patient with an appropriate indication in each of the following general categories, please indicate, for the AVERAGE patient, the INTENSITY of treatment (in number of manipulations per week) needed during:

- 1) the FIRST WEEK of treatment
- 2) the FOURTH WEEK of treatment
- 3) the TWELFTH WEEK of treatment

In the space provided, please indicate the TOTAL number of weeks of treatment needed for the AVERAGE patient.

	INTENSITY OF TREATMENT			Total weeks of
	<u>Week 1</u>	<u>Week 4</u>	<u>Week 12</u>	<u>Treatment</u>
1. LS spine radiographs show no contraindication and no imaging studies or imaging studies show no evidence of spinal stenosis or HNP				
a. No neurologic findings, no sciatic nerve irritation	3	2	1	14
b. No neurologic findings, with sciatic nerve irritation	3	2	1	15
c. Minor neurologic findings, no sciatic nerve irritation	3	2	1	15
d. Minor neurologic findings, with sciatic nerve irritation	3	2	1	16

	INTENSITY OF TREATMENT			Total weeks of Treatment
	<u>Week 1</u>	<u>Week 4</u>	<u>Week 12</u>	
2. LS spine radiographs show no contraindication and imaging studies show posterolateral HNP, no free fragment, no spinal stenosis, and no central HNP				
a. No neurologic findings, no sciatic nerve irritation	3	2	1	17
b. No neurologic findings, with sciatic nerve irritation	3	2	1	17
c. Minor neurologic findings, no sciatic nerve irritation	3	2	1	17
d. Minor neurologic findings, with sciatic nerve irritation	3	2	1	19
3. LS spine radiographs show no contraindication and imaging studies show posteroleteral HNP with free fragment, central HNP or spinal stenosis				
a. No neurologic findings, no sciatic nerve irritation	3	2	1	16
b. No neurologic findings, with sciatic nerve irritation	3	2	1	16
c. Minor neurologic findings, no sciatic nerve irritation	3	2	1	18
d. Minor neurologic findings, with sciatic nerve irritation	3	2	1	19

INTENSITY OF TREATMENT			Total weeks of Treatment
<u>Week 1</u>	<u>Week 4</u>	<u>Week 12</u>	

PATIENT HAS PRIOR LAMINECTOMY

1. LS spine radiographs show no contraindication and no imaging studies or imaging studies show no evidence of spinal stenosis or HNP, posterior facets intact
 - a. No neurologic findings, no sciatic nerve irritation

	3	2	1	16
_____	_____	_____	_____	_____
 - b. No neurologic findings, with sciatic nerve irritation

	3	2	1	16
_____	_____	_____	_____	_____
 - c. Minor neurologic findings, no sciatic nerve irritation

	3	2	1	17
_____	_____	_____	_____	_____
 - d. Minor neurologic findings, with sciatic nerve irritation

	3	2	1	18
_____	_____	_____	_____	_____
2. LS spine radiographs show no contraindication and imaging studies show posterolateral HNP, no free fragment, no spinal stenosis, and no central HNP, posterior facets intact
 - a. No neurologic findings, no sciatic nerve irritation

	3	2	1	17
_____	_____	_____	_____	_____
 - b. No neurologic findings, with sciatic nerve irritation

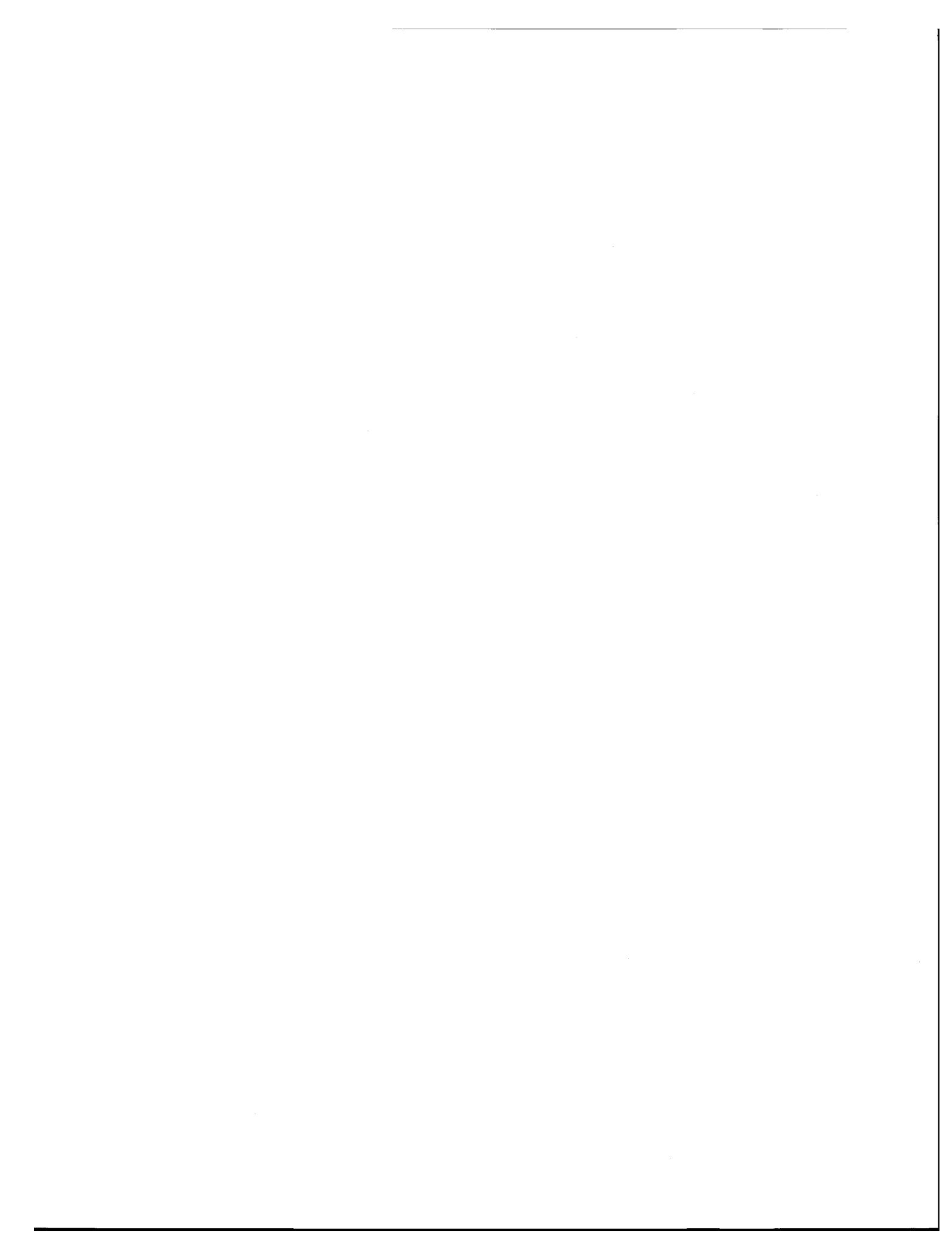
	3	2	1	18
_____	_____	_____	_____	_____
 - c. Minor neurologic findings, no sciatic nerve irritation

	3	2	1	18
_____	_____	_____	_____	_____
 - d. Minor neurologic findings, with sciatic nerve irritation

	3	2	1	19
_____	_____	_____	_____	_____

	INTENSITY OF TREATMENT			Total weeks of <u>Treatment</u>
	<u>Week 1</u>	<u>Week 4</u>	<u>Week 12</u>	
3. LS spine radiographs show no contraindication and imaging studies show free fragment, central HNP, spinal stenosis, or posterior facets not intact				
a. No neurologic findings, no sciatic nerve irritation	3	2	1	15
b. No neurologic findings, with sciatic nerve irritation	3	2	1	16
c. Minor neurologic findings, no sciatic nerve irritation	3	2	1	17
d. Minor neurologic findings, with sciatic nerve irritation	3	2	1	19









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