

**WORKERS' COMPENSATION
MEDICAL TREATMENT GUIDELINES
IN TEXAS**

**Research and Oversight Council
on Workers' Compensation**

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Acknowledgments

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Executive Summary

In the early to mid-1980s, workers' compensation medical costs were high and on the rise in Texas. In response to these trends and other widespread system problems, the 71st Texas Legislature passed sweeping workers' compensation reforms. One aspect of these reforms gave the Texas Workers' Compensation Commission (TWCC) the authority to develop medical treatment guidelines in an effort to ensure quality medical care and help achieve medical cost control. To date, TWCC has developed treatment guidelines in four key areas: mental health, spine injuries, upper extremities injuries, and lower extremities injuries.

This research study looks at:

- the extent to which the guidelines are used by health care providers and insurance carriers;
- how the Texas guidelines compare with those of other states; and
- how well the guidelines assist the delivery of quality medical care to injured workers from a clinical perspective.

To gather information on treatment guidelines, the Research and Oversight Council on Workers' Compensation (ROC) conducted a mail survey in December 1998 of 277 health care providers and 40 insurance carriers who participate heavily in the Texas workers' compensation system.¹ The ROC also contracted with a private consultant in the Spring of 1999 to compare and contrast the Texas treatment guidelines with treatment guidelines in other states (including states such as California, Florida, Oregon, Minnesota, and Washington, among others). In addition, the ROC consulted with six clinical reviewers (three physicians and three chiropractors) to assess the private consultant's comparisons for accuracy and validity. In addition, the clinical reviewers compared nine treatment guidelines covering carpal tunnel syndrome and back injuries (two treatment guidelines from Texas and seven from Florida, Minnesota, California, Washington, and Oregon).

¹ Health care providers surveyed for this report were drawn from a sample of health care providers who attended TWCC-sponsored designated doctor training in 1997. Insurance carriers were sampled from the top 75 insurance carriers in terms of workers' compensation insurance market share.

Key findings of this report include:

A significant number of health care providers (27 percent) and insurance carriers (16 percent) did not have copies of the TWCC medical treatment guidelines – even though the survey focused on participants active in the Texas workers’ compensation system. Sixty-three percent of health care providers who reported that they have copies of the guidelines said they use them “always” or “often” when treating a work-related injury, compared with 41 percent of insurance carriers.

- Based on figures from this study, it is estimated that less than half of the health care providers actively involved in the workers’ compensation system use the TWCC medical treatment guidelines to treat injured workers.
- Few health care providers and insurance carriers felt that the TWCC medical treatment guidelines were widely used when treating or evaluating the treatment of an injured worker.

A majority of those professionals surveyed felt that TWCC’s medical treatment guidelines were useful in determining which treatments are reasonable and necessary for injured workers, yet there was no consensus regarding whether the treatment guidelines provide the “best treatment practices” for treating and managing work-related injuries.

Overall, health care providers and insurance carriers differed when asked about when an insurance carrier should dispute the medical necessity of an injured worker’s treatment. Most of the insurance carriers (82 percent) felt that they should be allowed to dispute medical treatment that falls within the medical treatment guidelines as being reasonable and necessary compared to only 20 percent of health care providers. In addition, there was no consensus from either health care providers or insurance carriers regarding whether the TWCC medical treatment guidelines are effective at reducing controversy over the medical necessity of treatments.

In a comparison between the Texas medical treatment guidelines with those of other states, three key differences were identified:

- Texas medical treatment guidelines lack specific information regarding whether individual treatments and tests are medically appropriate or inappropriate;
- Treatment and testing timeframes are broader in scope than timeframes in other states;
- Texas medical treatment guidelines exhibit less documentation of clinical research for individual treatments and tests.

In a clinical review that included treatment guidelines from Texas and five other states, four of the six reviewers concluded that the Texas *Spine Treatment Guideline* and the Texas *Upper Extremities Treatment Guideline* (as well as all of the state guidelines reviewed) did not promote the excessive use of treatments and tests. Two reviewers, however, found that both of these Texas medical treatment guidelines (as well as California's low back and hand and wrist guidelines, Oregon's carpal tunnel guideline, and Minnesota's low back guideline) did promote excessive use of both treatments and tests.

None of the clinical reviewers thought the Texas treatment guidelines were too restrictive or limiting in the use of testing or treatment for work-related injuries.

Four of the six clinical reviewers did not identify any inappropriate tests or treatments in any of the treatment guidelines reviewed. Two reviewers identified inappropriate treatments in the Texas *Upper Extremities Treatment Guideline*.

In terms of thoroughness and ease of use, the Texas guidelines ranked lower on average than the guidelines from other states: the Texas *Upper Extremities Treatment Guideline* ranked third out of four guidelines reviewed; the Texas *Spine Treatment Guideline* tied for last out of five guidelines reviewed.

In conclusion, medical treatment guidelines can effectively educate system participants about new treatments and positive treatment outcomes, as well as improve consistency in the medical care provided to injured workers and control the over-utilization of medical care. In order to meet these objectives, however, treatment guidelines must be thorough, easy to use, and enforceable.

Treatment guidelines that are too broad in scope, lack adequate clinical research documentation, are cumbersome to use or are not used at all may cause more controversy in the system than they resolve. TWCC and other state workers' compensation administrative agencies spend considerable time and effort to develop these guidelines. This effort may be unnecessary if health care providers rely heavily on other methods (i.e., their own clinical experience and training; in-house treatment and testing protocols, contracted utilization review agent services, peer reviewers, and ultimately the medical dispute resolution process) to determine the type and duration of medical care appropriate for each worker.

It is clear that improvements can be made to the current Texas medical treatment guidelines to improve both the usage and the usability of the guidelines for all system participants. As medical treatment and review practices continue to evolve, however, it will be important to re-examine the role that the treatment guidelines should play, if any, in the Texas workers' compensation system.

Section I: Introduction

In the early to mid-1980s, average medical costs per claim were higher in Texas than many other states including Florida, New York, Wisconsin, Illinois, Colorado, Georgia, North Carolina, and Massachusetts. From 1974 –1984, average medical costs per claim in Texas increased 385 percent.²

As a possible solution to escalating medical costs, in 1989 the Texas Legislature created the Texas Workers' Compensation Commission (TWCC) and gave it the authority to adopt a medical fee guideline. Additionally, TWCC was given the authority to utilize certain aspects of managed care (such as pre-authorization of certain medical services and medical treatment guidelines) to contain costs while maintaining the injured worker's right to initial choice of treating doctor.³ However, recent medical cost data from the National Council on Compensation Insurance (NCCI), insurance carriers, and multi-state employers suggest that medical costs in Texas continue to be a pressing issue.⁴

While TWCC developed the medical fee guideline to reduce the cost of individual medical services provided to injured workers, it also created medical treatment guidelines in an attempt to ensure quality medical care and achieve effective medical cost control.⁵ TWCC developed the first treatment guideline--the *Mental Health Treatment Guideline*--in 1995, followed by the *Spine Treatment Guideline* (1995), the *Upper Extremities Treatment Guideline* (1996), and the *Lower Extremities Treatment Guideline* (1998).

² See Peter Barth, Richard Victor and Stacey Eccleston, *Workers' Compensation in Texas: Administrative Inventory*, Workers' Compensation Research Institute (1989), pp. 80-81.

³ Prior to the 1989 workers' compensation reforms, TWCC's predecessor, the Industrial Accident Board (IAB), also had the authority to develop a medical fee guideline. The IAB developed its first medical fee schedule in 1988.

⁴ According to the National Council on Compensation Insurance, *1999 Annual Statistical Bulletin* (April 1999), the average expected medical cost per claim in Texas, based on policy year 1995 data, exceeds the national average by almost 80 percent (\$4,912 in Texas compared with \$2,735 nationwide). Other medical data from TWCC, multi-state insurance carriers and multi-state employers affirm this trend. See Research and Oversight Council on Workers' Compensation, "Trends in Texas Workers' Compensation Medical Costs," *Texas Monitor* (Spring 1999) pp.1-3; Research and Oversight Council on Workers' Compensation, *Healthcare Costs in the Texas Workers' Compensation System* (1999); and Research and Oversight Council on Workers' Compensation, *Medical Cost Trend Analysis: Data from Three Workers' Compensation Insurance Carriers* (1999).

Purpose of the Report

This report seeks to examine the relevance of the current TWCC medical treatment guidelines in ensuring quality medical care and controlling medical costs by:

- examining the extent to which health care providers and insurance carriers currently use the guidelines in their examination of work-related injuries;
- comparing the TWCC medical treatment guidelines with similar treatment guidelines in other states; and
- assessing, from a clinical perspective, the degree to which the TWCC medical treatment guidelines impact or influence medical decisions.

The conclusion of this report includes suggestions for improving the current medical treatment guideline development process in Texas and a discussion regarding the use of treatment guidelines as a medical cost control mechanism.

Data and Methodology

To measure the usage of TWCC's medical treatment guidelines, the Research and Oversight Council on Workers' Compensation (ROC) conducted a mail survey in December 1998 of 277 health care providers and 40 insurance carriers who participate heavily in the Texas workers' compensation system. The health care providers included in the survey sample were drawn from a population of 500 health care providers who attended TWCC designated doctor training in 1997. Insurance carriers were sampled from the top 75 insurance carriers, ranked in terms of workers' compensation insurance market share in Texas.

In order to accurately compare the Texas medical treatment guidelines with other states, the ROC contracted with a private consultant in the Spring of 1999 to compare and contrast the treatment parameters associated with the ten costliest medical diagnoses (in terms of total medical cost payments in the system) in Texas with twelve other states (including California, Colorado, Florida, Oklahoma, Utah, West Virginia, Connecticut, Massachusetts, Maine, Minnesota, Oregon and Washington).⁶ According to TWCC, the ten costliest diagnoses (seven

⁵ See *Texas Labor Code*, Section 413.011(d).

⁶ These states were chosen because their state workers' compensation systems are often compared to Texas, and their treatment guidelines were readily available for analysis. The top ten diagnoses, in terms of total medical costs,

of which are also the most frequent in terms of the volume of medical bills they produce) include:

Wrist injuries

- Carpal tunnel syndrome*

Back Injuries without Myelopathy⁷

- Sprains and strains of lumbar area*
- Sprains and strains of lumbosacral joint or ligament*
- Displacement of lumbar intervertebral disc without myelopathy*
- Displacement of lumbar intervertebral disc, site unspecified, without myelopathy
- Degeneration of lumbar or lumbosacral intervertebral disc
- Lumbago*
- Sprains and strains of neck*
- Displacement of cervical intervertebral disc, without myelopathy

Back Injuries with Possible Myelopathy

- Neuritis or radiculitis, thoracic or lumbosacral, unspecified*

Six clinical reviewers (three physicians and three chiropractors) examined these guideline comparisons for their accuracy and validity. The six clinical reviewers also compared nine different treatment guidelines that cover these ten diagnoses (four carpal tunnel syndrome/upper extremities treatment guidelines and five low-back/spine treatment guidelines) from Texas and five other states (Washington, Florida, Minnesota, California, and Oregon). To maintain objectivity, state names were removed from the guidelines during the review. Each of the clinical reviewers selected for this study is experienced with workers' compensation cases.⁸

were chosen for this analysis because of the current emphasis on the medical cost portion of a workers' compensation claim. Seven of these diagnoses (identified by an *) are also included in the top ten most frequent diagnoses.

⁷ Myelopathy is a disorder of the spinal cord. See *Stedman's Medical Dictionary: 26th Edition*, Williams and Wilkins (1995), p. 1166.

⁸ Most of the clinical reviewers reported that workers' compensation cases constitute 15-25 percent of their entire practice. One reviewer reported that workers' compensation cases constitute approximately 40 percent of his/her practice and one reviewer reported that workers compensation cases make up less than 5 percent of his/her practice.

Section II: Summary of the Current Texas Medical Treatment Guideline Development Process

The Texas Workers' Compensation Commission (TWCC) utilizes a thorough step-by-step process in developing a medical treatment guideline:

The treatment guideline development process may begin either by recommendations made by TWCC staff or provided by its Commissioners or may be recommended by other persons outside of the Commission. Once the process has been initiated, TWCC staff gathers data and information, [and] may involve group meetings with key system participants to obtain further information and recommendations and may involve review and comparison of treatments guidelines in other jurisdictions and other studies. The statutorily created Medical Advisory Committee (MAC) may also provide recommendations and suggestions.⁹

After the preparation work is completed and the draft guideline is reviewed internally, it may then be presented to the TWCC Commissioners for consideration for proposal. If the Commissioners vote to propose the guideline, they will also decide whether to set a public hearing on the rule. After proposal, the guideline is published in the *Texas Register* and on the TWCC Internet website and any public comment is received and analyzed.¹⁰ The TWCC staff prepares suggested responses to the public comments, drafts any necessary revisions to the rule as proposed, and may submit the rule, with preamble, to the Commissioners for possible adoption of the rule at a public meeting. The staff may also submit a recommendation for the Commissioners to repropose a rule depending on the recommended revisions.

The Texas Workers' Compensation Act states that medical policies should be reviewed and revised every two years to reflect medical treatment or ranges of treatment that are reasonable or necessary at the time the review and revision is conducted.

Source: Texas Workers' Compensation Commission, 1999

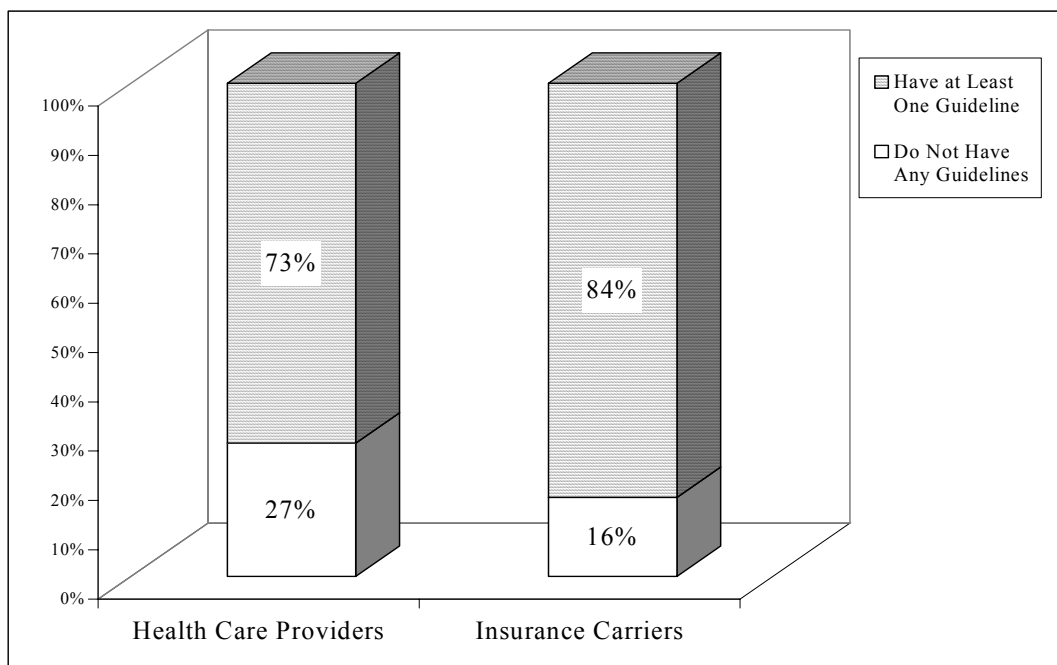
⁹ The MAC is a statutorily-mandated advisory group of health care providers and other system participants (i.e., employers, employees, representatives from public and private health care facilities, medical equipment suppliers, and the general public) that advises TWCC staff in developing and administering medical policies. See *Texas Labor Code*, Sections 413.005, 413.011, and 413.012.

¹⁰ The *Texas Register* is a periodical published weekly by the Texas Secretary of State's Office. It contains appointments, executive orders and proclamations by the Governor; summaries of Attorney General opinions and open records decisions; summaries of opinions by the Texas Ethics Commission; proposed, withdrawn, and adopted state agency rules; notices of state agency meetings; state agency requests for proposals; and other public information. See *Government Code*, Title 10, Chapter 2002.

Section III: Usage of the TWCC Medical Treatment Guidelines

Over one-quarter (27 percent) of health care providers and 16 percent of insurance carriers surveyed for this study reported that they either do not have any of the TWCC medical treatment guidelines in their offices or did not know whether their utilization review agent had copies of the treatment guidelines (see Figure 1). Many of these health care providers replied that they had no idea that any workers' compensation medical treatment guidelines existed.

Figure 1: Percentage of Health Care Providers and Insurance Carriers Surveyed Who Do Not Have TWCC Medical Treatment Guidelines



Source: Research and Oversight Council on Workers' Compensation, Medical Treatment Guideline Survey, 1998.

It is important to note that all of the health care providers surveyed for this report underwent TWCC-sponsored training to be a designated doctor in 1997 and therefore have more involvement in the workers' compensation system than the average health care provider.¹¹ It is reasonable to assume that the TWCC medical treatment guidelines would be found among even fewer of the general population of health care providers.

¹¹ Designated doctors are doctors appointed by a mutual agreement of the insurance carrier and the injured worker or by TWCC to resolve a dispute over an injured worker's medical condition. In order to be included on TWCC's

Of the four TWCC treatment guidelines, the most commonly owned by health care providers and insurance carriers was the *Spine Treatment Guideline*, followed by the *Upper Extremities*, *Lower Extremities* and *Mental Health Treatment Guidelines* (see Table 1).

Table 1: Most Frequent Treatment Guidelines Owned by Health Care Providers and Insurance Carriers Who Reported Having at Least One Treatment Guideline

TWCC Treatment Guidelines	Health Care Providers	Insurance Carriers
<i>Spine Treatment Guideline</i>	70%	84%
<i>Upper Extremities Treatment Guideline</i>	47%	76%
<i>Lower Extremities Treatment Guideline</i>	39%	68%
<i>Mental Health Treatment Guideline</i>	19%	63%

Source: Research and Oversight Council on Workers' Compensation, Medical Treatment Guideline Survey, 1998.

Interestingly, there were differences in the proportion of medical doctors and chiropractors who had copies of the medical treatment guidelines. In general, one-third (33 percent) of the medical doctors who responded to the survey did not have any of the treatment guidelines, compared to only 9 percent of chiropractors.

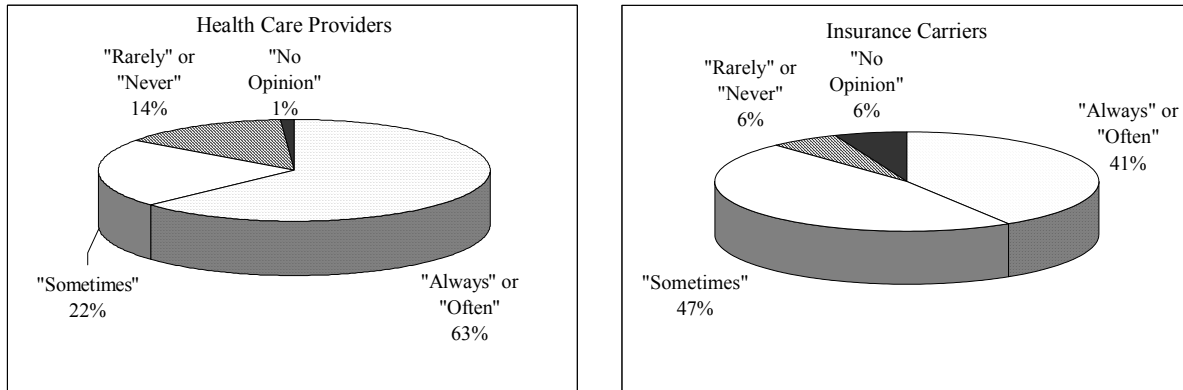
Aside from a lack of knowledge regarding the existence of treatment guidelines in Texas, some health care providers said they do not have or use the TWCC medical treatment guidelines in their practice because they “determine treatment based on each individual, and not according to a generic, general guideline,” while others consider treatment guidelines “cookbook medicine.” On the other hand, carriers who reported that they do not have copies of the guidelines either said that their utilization review agent handles determinations of medical necessity or that they rely on their own set of clinical protocols and contracted peer review doctors to review the medical necessity of proposed treatments rather than the guidelines.

Usage of the treatment guidelines, among health care providers and insurance carriers who reported that they have copies of the guidelines, also varies. A much larger percentage of these

designated doctor list, a doctor must complete a TWCC-sponsored training program. See *Texas Labor Code*, Section 408.122.

health care providers reported that they “always” or “often” use the treatment guidelines compared to insurance carriers (see Figure 2).¹²

Figure 2: How often do you use these guidelines when treating, or evaluating the medical treatment, for a work-related injury?



Source: Research and Oversight Council on Workers’ Compensation, Medical Treatment Guideline Survey, 1998.

Note: These responses were taken from a subset of health care providers and insurance carriers who reported that they have copies of the TWCC treatment guidelines.

Based on the percentage of health care providers who have copies of the treatment guidelines in their offices and the percentage of health care providers who use the guidelines “always” or “often” in their treatment of injured workers, it is estimated that less than half (46 percent) of health care providers who are actively involved in workers’ compensation cases use the TWCC medical treatment guidelines in their practice.

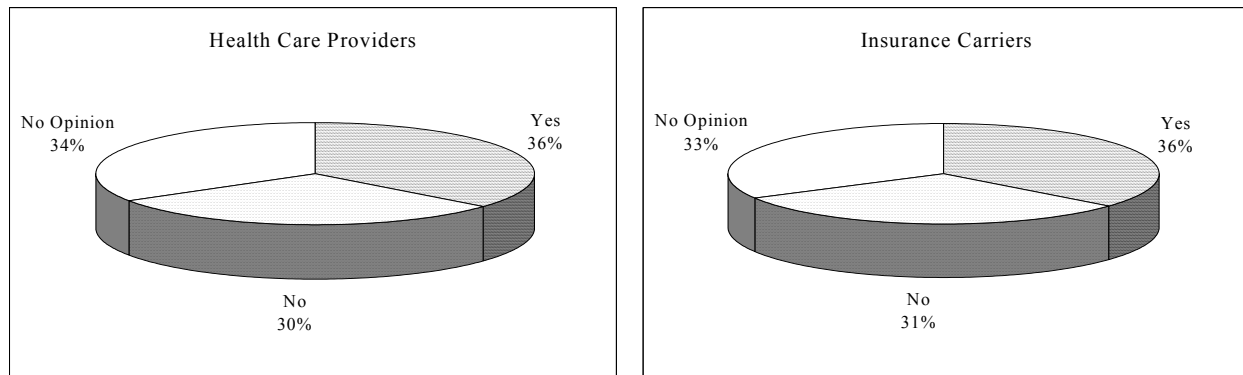
When questioned further, only 23 percent of health care providers and 13 percent of insurance carriers said they believed that the TWCC medical treatment guidelines were widely used by health care providers when treating work-related injuries. In addition, fewer than half (39 percent of health care providers and 46 percent of insurance carriers) said they thought the TWCC medical treatment guidelines were widely used by insurance carriers when evaluating medical treatment for work-related injuries.

Usefulness of the TWCC Medical Treatment Guidelines

¹² When the usage of the treatment guidelines was compared among medical doctors and chiropractors who reported that they have copies of the guidelines, 75 percent of the chiropractors said that they “always” or “often” use the guidelines when treating a work-related injury, compared to only 40 percent of medical doctors.

Despite the fact that less than half of health care providers actively use the TWCC medical treatment guidelines, 60 percent of health care providers and 74 percent of insurance carriers reported that the TWCC medical treatment guidelines are either “extremely” or “somewhat” useful in determining which treatments are reasonable and necessary for work-related injuries. However, when health care providers and insurance carriers were asked whether the treatment guidelines promote the “best treatment practices” for treating and managing work-related injuries in Texas, responses were mixed (see Figure 3).

Figure 3:
Do the current TWCC medical treatment guidelines promote the “best treatment practices” for treating and managing work-related injuries in Texas?



Source: Research and Oversight Council on Workers’ Compensation, Medical Treatment Guideline Survey, 1998.

In addition, a higher percentage of chiropractors (46 percent) responded that, in their opinion, the TWCC medical treatment guidelines promote the “best treatment practices” for treating and managing work-related injuries, compared to medical doctors (33 percent).¹³

Insurance carriers who responded that the TWCC medical treatment guidelines did not promote the “best treatment practices” said that in general, the guidelines are “too broad,” “allow for overutilization [of medical treatments],” “[are] not outcome-oriented,” and “difficult to follow.”

In addition, carrier responses indicated that certain providers “use the guidelines as entitlement templates to track patients through patterns of care whether that amount or form of care is

¹³ In general, chiropractors had a more defined opinion to this question. Forty-six percent replied that the TWCC medical treatment guidelines promote “best treatment practices,” while 37 percent disagreed, and 18 percent were undecided. On the other hand, replies from medical doctors were mixed. One-third (33 percent) of medical doctors said that the TWCC medical treatment guidelines promote the “best treatment practices,” while 28 percent disagreed, and 39 percent were undecided.

necessary” and that “the guidelines are being used as a way to provide the substantiating verbiage for forms of care that may or may not be necessary.”

On the other hand, some health care providers reported that “the best treatment practice is tailored to the individual patient ” and not found in a treatment guideline, while others said the guidelines are “not user-friendly, especially to those providers who don’t treat a lot of workers’ compensation patients,” and are “too non-specific at the primary care level,” allowing too much interpretation for insurance carriers to determine the medical necessity of treatments. Still other health care providers said the guidelines promote certain types of medical treatments (e.g., chiropractic manipulations, epidural steroid injections, and trigger point injections) for specific injuries and that the “guidelines are written broadly to keep many political customers happy.”

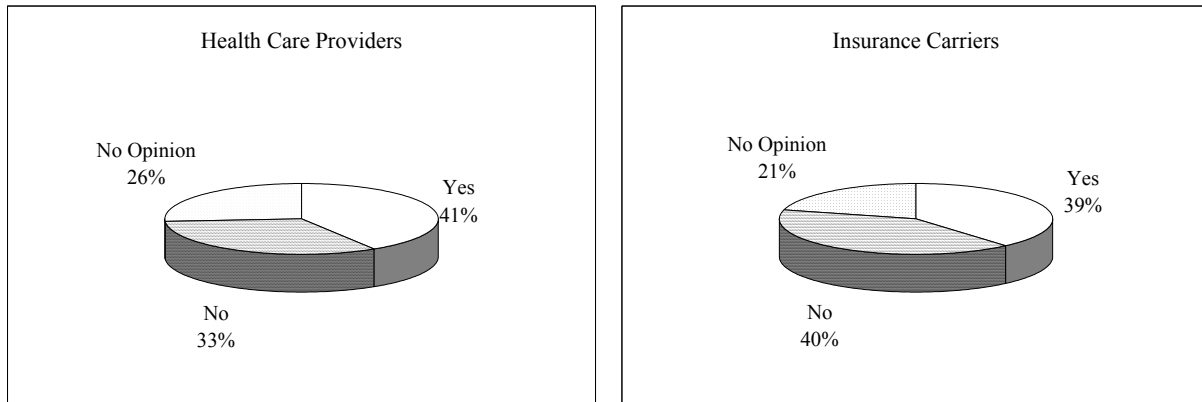
There are substantial differences in opinion between health care providers and insurance carriers over when the medical necessity of a treatment should be disputed by an insurance carrier. Overwhelmingly, insurance carriers (82 percent) believe that they should be allowed to dispute medical treatment that falls within the parameters of the TWCC medical treatment guidelines as reasonable and necessary, while only 20 percent of health care providers agree with this statement.

In addition to these differences in opinion over when the medical necessity of a treatment should be disputed, there was little consensus from either health care providers or insurance carriers regarding how effective the guidelines are at reducing controversy over the medical necessity of treatments (see Figure 4). Controversy over the medical necessity of treatments can lead to disputes that may require resolution through the TWCC administrative medical dispute resolution process.¹⁴

**Figure 4:
Are the guidelines effective at reducing controversy**

¹⁴ In 1998, TWCC considered 321 disputes over the medical necessity of treatments or services, a 98 percent increase from 1997 (162 disputes). The average timeframe to resolve these medical disputes through the TWCC administrative medical dispute resolution process was 146 days in 1998 and 145 days in 1997. See Research and Oversight Council on Workers’ Compensation, *An Examination of the Medical Dispute Resolution Process in Texas* (1999).

over the medical necessity of treatments?



Source: Research and Oversight Council on Workers' Compensation, Medical Treatment Guideline Survey, 1998.

Summary

It appears that a substantial segment of health care providers and insurance carriers either do not have or do not actively use the TWCC treatment guidelines to evaluate medical treatment for work-related injuries. In general, these health care providers said they either did not know the guidelines existed or they evaluate an injured worker's medical treatment on a case-by-case basis without guideline considerations. Carriers who said they do not have or do not use the guidelines, on the other hand, indicated that they use utilization review agents, their own set of clinical protocols, or contracted peer reviews to evaluate the medical necessity of an injured worker's treatment rather than TWCC's treatment guidelines.

However, a majority of health care providers and insurance carriers reported that the TWCC medical treatment guidelines are either "extremely" or "somewhat" useful in determining which treatments are reasonable and necessary for work-related injuries, yet there was no consensus from either group on whether the TWCC treatment guidelines promote the "best treatment practices" for treating and managing work-related injuries or reduce controversy over the medical necessity of treatments.

Section IV: Comparison of Texas Treatment Guidelines with Those of Other States

The development and use of treatment guidelines for work-related injuries is a relatively new phenomenon. Along with Texas, many states developed treatment guidelines in the early and mid-1990s after sweeping workers' compensation reform efforts nationwide. These guidelines (including both state and federal treatment guidelines) were created generally to help health care providers and insurance carriers make decisions regarding the medical necessity of an injured worker's treatment through the use of systematically-designed treatment parameters supported by clinical research.¹⁵

Twenty-one states, including Texas, have developed at least one treatment guideline. As Table 2 shows, treatment guidelines for low-back injuries (e.g., the *Spine Treatment Guideline* in Texas) are the most common type of guideline developed and used by states.

The general format of medical treatment guidelines varies by state. Some states develop treatment guidelines based on a particular body part or area (e.g., upper extremities, spine, etc.) while others concentrate on particular injuries (e.g., carpal tunnel syndrome or lumbar herniated disc, etc.). Alternatively, certain states devote an entire guideline to one body area (e.g., a low-back non-surgical and surgical treatment guideline) while others split up their guidelines by whether the treatment requires conservative or surgical care (e.g., low-back pain and lumbar fusion guidelines). Finally, states may vary their guideline formats by using different combinations of narrative explanations, treatment tables, or algorithms.¹⁶ Regardless of the format, each state's treatment guideline is created to give health care providers, insurance carriers, injured workers, employers, and state administrators guidance on the type and duration of medical treatment that is normally reasonable and necessary for work-related injuries.

¹⁵ Ramona Tanabe, *Managed Care and Medical Cost Containment in Workers' Compensation: A National Inventory, 1998-1999*, Workers' Compensation Research Institute (1999).

¹⁶ In the Texas *Spine Treatment Guideline*, treatment algorithms are flow charts that assist medical decision-making by leading the reader through a series of questions.

Table 2: State Workers' Compensation Treatment Guidelines, as of March 1998
 ("X" indicates guideline in place)

Jurisdiction	# of Guides in Place	Guides in Place				
		Low Back	Upper Extremities	Lower Extremities	Carpal Tunnel	Other
Alaska	1	♦				♦
California	9	X	X	X	X	X
Colorado	10	X	X	X	X	X
Connecticut	4	X	X	X		
Florida	2	X	+	+		X
Hawaii	1	♦				♦
Kentucky	1	X				
Maine	1	X			♦	♦
Massachusetts	25	X			X	X
Minnesota	9	X	X			X
Nevada	8	X	X	X		♦
North Carolina	1	♦				♦
Oklahoma	3	X	+	X		+
Oregon	1	+	+	+	X	♦
Rhode Island	31	X	X	X	X	X
South Dakota	2	♦				♦
Texas	4	X	X	X		X
Utah	3	X		X	X	
Washington	8	X	X	X	X	X
West Virginia	10	X	X	X	X	X
Wyoming	2	♦				♦
Total		15	9	10	8	9

Source: Ramona Tanabe, *Managed Care and Medical Cost Containment in Workers' Compensation: A National Inventory, 1998-1999*, Workers' Compensation Research Institute (1999).

Notes: "+" = Guidelines are being developed in these states. ♦ Guidelines in Alaska, Hawaii, North Carolina, South Dakota, and Wyoming limit the frequency of certain types of treatments (such as physical therapy and chiropractic treatments). Nevada uses *The Occupational Medicine Practice Guidelines* of the American College of Occupational and Environmental Medicine. Maine uses guidelines for carpal tunnel syndrome and pain. Oregon is developing standards for 24 treatment services.

As previously described in the methodology section, the following comparisons were made between treatment guidelines in Texas and other states for two key groups of diagnoses: back injuries and carpal tunnel syndrome cases. These comparisons are based on the findings of a private consultant retained by the ROC and confirmed by the clinical reviewers involved in the project.

Comparison of Treatment Guidelines for Back Injuries

After the Texas *Spine Treatment Guideline* was compared with similar guidelines in other states, key differences emerged:

Differences in Timeframes for Treatment and Diagnostic Testing for Back Injuries

The Texas *Spine Treatment Guideline* uses three different timeframes for treatment: 1) primary, 0-8 weeks; 2) secondary, 0-8 weeks; and 3) tertiary, 0-6 weeks, for a total of 22 weeks of treatment; and three separate timeframes for diagnostic testing: 1) 0-6 weeks; 2) 6 weeks to 4 months; and 3) after four months.¹⁷ Most other treatment guidelines, however, use the same timeframes for diagnostic testing and treatment: 1) acute, less than one month; 2) sub-acute, one-to three months; and 3) chronic, more than three months.

Differences in Description of What Treatments and Diagnostic Tests are Clinically Appropriate for Back Injuries

One of the most significant differences between the Texas *Spine Treatment Guideline* and other states' low-back or spine treatment guidelines is the level of description regarding when and how long it is clinically appropriate to use specific diagnostic testing/assessments or treatments.

For example, for CT scans or MRIs in Texas, the timeframe for testing is 6 weeks to 4 months. The Texas guideline also states: "Documentation of significant neurological deficit may support early intervention (0-6 weeks) of MRIs and CT scans, which would better direct the course of treatment." Besides this general timeframe, there are no comments regarding the frequency of these tests or the situations in which these tests are clinically appropriate or inappropriate.

On the other hand, California's neck and low-back guidelines specify when CT scans or MRIs may be clinically appropriate. For example:

Clinical indications [include]: 1) [a] finding that suggests lumbar nerve root compromise (radiculopathy from herniated disc and/or spinal stenosis) or a severe or progressive neurologic deficit has occurred. These studies are most suitable when surgery or epidural steroid injections are being considered and/or when the injured worker has failed an appropriate course of treatment; 2)

¹⁷ See Texas Workers' Compensation Commission, *Spine Treatment Guideline* (1995).

findings that suggest tumor or infection; [or] 3) findings that suggest a fracture and lumbar x-rays are inconclusive.¹⁸

In addition to diagnostic tests, the Texas treatment guidelines provide little guidance regarding the situations in which individual medical treatments are clinically appropriate, other than general treatment timeframes. For example, in the Texas *Spine Treatment Guideline*, the treatment timeframe for exercise is 0-8 weeks with no additional information regarding the frequency or the types of exercises that may be medically appropriate.

The Florida and California low-back treatment guidelines, however, describe in detail the types of exercises that are appropriate for back injuries and the general timeframe in which these exercises may be introduced as treatment. For example, Florida's guideline states:

Conditioning exercises for trunk muscles (especially back extensors) gradually increased, are helpful for patients with acute low back problems, especially if symptoms persist. During the first two weeks, these exercises may aggravate symptoms since they mechanically stress the back more than endurance exercises.¹⁹

California's guideline goes even further, describing the maximum number of rehabilitative exercise visits that are appropriate (e.g., three visits per week in the initial phase, with an emphasis on home exercise for a maximum of twelve visits in the first month).

There are also differences in the description of when surgical procedures are appropriate or inappropriate. The Texas guideline uses algorithms to identify whether the use of specific surgical procedures is medically appropriate; however, the guideline does not list when surgery would be inappropriate. In comparison, guidelines in Minnesota and Washington include discussions about when specific procedures, such as lumbar fusion (spinal surgery) are appropriate or inappropriate (including the amount of appropriate post-operative physical

¹⁸ See State of California Industrial Medical Council, *California Treatment Guidelines: Neck Problems and Low Back Problems* (1997).

¹⁹ See Florida Agency for Health Care Administration (AHCA), *The Impact of Florida's Low-Back Practice Guideline on Treatment of New Workers' Compensation Injuries* (1997). The basis for Florida's guideline is the Federal *Acute Low Back Problems in Adults, Clinical Practice Guidelines*, developed by the Agency for Health Care Policy Research (AHCPR). Kentucky and Maine also use the AHCPR's *Guidelines* as the basis for their treatment guidelines.

therapy).²⁰ In addition, the Washington guideline includes a patient consent form that must be completed by the injured worker before any lumbar fusion surgery is performed. The form outlines the potential risks involved with surgery and helps to educate the worker about the lumbar fusion procedure.

Differences in the Documentation of Clinical Research

State agencies wishing to develop a medical treatment guideline often recruit a working group of health care providers to reach a consensus on treatments and diagnostic tests that should be included in the guideline and “ground-rules” for utilizing those treatments and tests. The inclusion of individual health care providers in the treatment guideline development process not only ensures an expert opinion from a wide range of health care specialties, but also encourages support from the health care providers who will be using the guidelines in their own practice.

In addition to individual medical opinions, gathering clinical research is an important and necessary part of treatment guideline development. Clinical research adds credence to the inclusion or exclusion of specific treatments and tests by providing a scientifically valid research base by which medical decisions can be made. National workers’ compensation organizations, such as the Workers’ Compensation Research Institute and the Agency for Health Care Policy Research (AHCPR), an arm of the U.S. Department of Health, say that treatment guidelines should be anchored in “published scientific evidence” and that consensus from the medical community is important, but secondary, unless there is a void of research findings on a specific treatment/test.²¹

Like other states, the Texas *Spine and Upper Extremities Treatment Guidelines* were developed using a workgroup of various health care providers and contain a bibliography of clinical studies for reference. However, other than in the bibliography, clinical studies are not cited in the text of the Texas guidelines, making it unclear which studies apply to which treatments/tests.

²⁰ See Minnesota Department of Labor and Industry, Administrative Rules: Chapter 5221 (1995); and G. Franklin, and R. Plaeger-Brockway, *Medical Practice Guidelines in Washington State Workers’ Compensation*, Washington State Medical Industrial Insurance Advisory Committee (1992).

²¹ See U.S. Department of Health and Human Services, Agency for Health Care Policy Research, *Clinical Practice Guidelines for Acute Low Back Problems in Adults* (1994); and Ramona Tanabe, *Managed Care and Medical Cost*

In comparison, states such as Florida, Kentucky, and Maine use a rating system to measure the amount of scientific evidence available to support each proposed treatment and diagnostic testing method. Table 3 shows an example of the rating scale used in Florida for its low-back treatment guideline.

**Table 3: U.S. Department of Health and Human Services
Agency for Health Care Policy and Research
Scientific Research Evidence Rating Scale for Proposed Treatments**

Rating	Description of Rating
“A”	<u>Strong research-based evidence</u> (multiple relevant and high-quality scientific studies).
“B”	<u>Moderate research-based evidence</u> (one relevant, high-quality scientific study or multiple adequate scientific studies*).
“C”	<u>Limited research-based evidence</u> (at least one adequate scientific study* for patients with low back pain).
“D”	<u>Panel interpretation</u> of information that did not meet inclusion criteria as research-based evidence.

Source: U.S. Department of Health and Human Services, Agency for Health Care Policy and Research, *Acute Low Back Problems in Adults* (1994), p. 13.

Note: * These studies met minimal formal criteria for scientific methodology and relevance to population.

In addition to this rating, each proposed treatment/test contained in the Florida guideline includes the workgroup’s recommendations, examination of other scientific literature, discussions of the efficacy of the proposed treatment/test, and an examination of the potential harm and costs of each proposed treatment/test. The workgroup’s proposed treatment recommendations are structured as follows:²²

- “Recommendations for: If the available evidence indicates that the potential benefits outweigh the potential harms.
- Options: If the available evidence of the potential benefits is weak or equivocal (i.e., there are inconsistent research findings) but the potential harms and costs appear small.
- Recommendations against: If the available evidence indicates either a lack of benefit or that potential harms and costs

Containment in Workers’ Compensation: A National Inventory, 1998-1999, Workers’ Compensation Research Institute (1999).

²² See Florida Agency for Health Care Administration, *The Impact of Florida’s Low-Back Practice Guideline on Treatment of New Workers’ Compensation Injuries* (1997).

outweigh potential benefits.”

The California guideline includes its own rating system (i.e., “appropriateness levels”) which measures both the amount of scientific evidence and consensus of the health care community for each proposed treatment/test (see Table 4).

Table 4: State of California Industrial Medical Council Medical Treatment Guideline Appropriateness Levels

	Level 4	Level 3	Level 2	Level 1
Clear Research-Based Evidence	Yes	No	No	No
Clinical Evidence	Yes	Yes	Some	No
Consensus of Health Care Community	Yes	Yes	Partial	No
Clinical Utility	Appropriate and recommended	Acceptable or appropriate in most cases	Appropriate in uncommon individual cases. Document the case specific clinical factors or circumstances which make this procedure reasonable and necessary for this worker.	Inappropriate

Source: State of California Industrial Medical Council, *California Treatment Guidelines: Neck Problems and Low Back Problems*, 1997.

Comparison of Treatment Guidelines for Carpal Tunnel Syndrome (CTS) Injuries

Key differences were also found between the Texas *Upper Extremities Treatment Guideline* (which includes treatment parameters for CTS) and carpal tunnel guidelines in other states.

Differences in Timeframes for Treatment and Diagnostic Testing for CTS

The Texas *Upper Extremities Treatment Guideline* contains a different set of timeframes for both treatment and diagnostic testing than the Texas *Spine Treatment Guideline*: 1) primary, 0-3 months; 2) secondary, 0-3 months; and 3) tertiary, 0-6 months, for a total of 12 months of

treatment.²³ These treatment/testing timeframes are generally longer than the other carpal tunnel guidelines reviewed for this study (including Oregon, California, and Washington, which use the same treatment/testing timeframes for every injury: 1) acute, less than one month; 2) sub-acute, one-to three months; and 3) chronic, more than three months).

Differences in Description of What Treatments and Diagnostic Tests are Clinically Appropriate for CTS

The Texas *Upper Extremities Treatment Guideline* is split into different diagnoses or groups of diagnoses (e.g., carpal tunnel syndrome or CTS, which is located in the neuropathy diagnoses group), each with their own treatment and diagnostic tables. Splitting the guideline by medical diagnoses gives health care providers and insurance carriers the ability to examine the diagnostic testing and treatment considered appropriate for each individual medical diagnosis. By comparison, the Texas *Spine Treatment Guideline* contains only one set of treatment/diagnostic tables for all back injuries.

The Texas *Upper Extremities Treatment Guideline* also contains a section describing clinical indicators for carpal tunnel surgery. These indicators include: “1) failure to respond to non-operative treatment; 2) presence of thenar atrophy or weakness or significant hyperesthesia; 3) progressive symptoms; 4) presence of lesion; and/or 5) presence of compartment syndrome or extensive injury.” Other than this list of surgical indicators, the Texas *Upper Extremities Treatment Guideline* gives little information regarding the situations in which individual treatments/tests are clinically appropriate or inappropriate.

By contrast, the Oregon and Washington guidelines not only list the situations where nerve conduction velocity studies (NCVs) are appropriate, but also the expected test results if the patient has CTS.²⁴ Additionally, Washington’s guideline includes a worksheet to be used by health care providers to determine which NCV study should be performed. By comparison, the

²³ See Texas Workers’ Compensation Commission, *Upper Extremities Guideline* (1997).

²⁴ See Oregon Department of Consumer and Business Services, Workers’ Compensation Division, *Oregon Carpal Tunnel Syndrome Treatment Guideline* (1996); and Washington Department of Labor and Industries, *Medical Treatment Guideline: Diagnoses and Treatment of Work-Related Carpal Tunnel Syndrome* (1995).

Texas guideline does not include a description of when NCVs are clinically appropriate, expected test results, or other tests that may be inappropriate for diagnosing CTS.

Summary of Treatment Guide Comparisons

Although created for the same general purpose, the Texas treatment guidelines differ from other state treatment guidelines in several key areas:

- lack of information regarding the situations in which individual treatments and tests are medically appropriate or inappropriate;
- broad treatment and diagnostic testing timeframes; and
- lack of clinical research documentation for individual proposed treatments and tests.

These differences may inhibit the usefulness of the TWCC medical treatment guidelines in ensuring quality medical care and controlling medical costs since they permit subjectivity among those who use the guidelines to determine the medical necessity of treatments.

Section V: Clinical Review of the Medical Treatment Guidelines

As Section III previously described, a large percentage of health care providers actively involved in the Texas workers' compensation system either do not have or do not use the TWCC medical treatment guidelines in their treatment of work-related injuries. While this finding indicates a lack of information provided to (or sought by) health care providers in the system, some health care providers who did indeed have copies of the guidelines reported that they do not typically use them because they believe that "medical treatment (should be) based upon clinical findings and responses of the individual injured worker" and that the TWCC guidelines are too "complicated," "take too much time," and are "too non-specific at the primary care level of treatment to be of value."

In order to better understand how the Texas treatment guidelines compare with those used in other states from a medical perspective, the ROC contracted with six clinical reviewers licensed in Texas (three physicians and three chiropractors) to provide a qualitative assessment of Texas treatment guidelines along with those of other states.²⁵

Guideline Thoroughness and Ease of Use

It stands to reason that in order for a treatment guideline to be effective, it must contain all the relevant information needed to evaluate the medical necessity of treatments and at the same time be easy to use. In general, the clinical reviewers for this project rated the Florida *Low-Back Practice Guideline* the highest in terms of thoroughness and ease of use, followed by the California, Minnesota, Texas and Washington low-back or spine treatment guidelines (ratings were tied for the Texas and Washington guidelines). For carpal tunnel syndrome cases, reviewers rated the *Oregon Carpal Tunnel Guideline* the highest, followed by Washington, Texas and California's guidelines (see Table 5).

²⁵ The clinical reviewers compared Texas *Spine Treatment Guideline* and *Upper Extremities Treatment Guideline* with comparable guidelines in Washington, Florida, Minnesota, California, and Oregon. The clinical reviewers were given copies of each of the guidelines with the state names removed and asked to answer a series of questions as well as review the validity of the findings of the ROC private consultant (see Technical Appendix B and C for a summary of the qualifications of each clinical reviewer and a list of the questions). Each reviewer submitted his/her answers separately and did not examine the answers of the other reviewers. Four of the reviewers (two physicians and two chiropractors) were chosen by the Texas Medical Foundation and remained anonymous during this study; two reviewers (one physician and one chiropractor) were selected by the ROC.

**Table 5: Average Treatment Guideline Usability Rating Given by Clinical Reviewers
For Carpal Tunnel Syndrome and Back Injuries
(Scale: 1 to 10, with 10 being the most thorough and easy to use guideline)**

(minimum and maximum ratings for each guideline are included in parentheses)

State Treatment Guideline	Average Rating	Average Physician's Rating	Average Chiropractor's Rating
Carpal Tunnel Syndrome Guidelines			
• <i>Texas Upper Extremities Treatment Guideline</i>	6.6 (min. rating = 4 max. rating = 8.5)	6.3 (min. rating = 4 max. rating = 8.5)	6.8 (min. rating = 5.5 max. rating = 8)
• <i>Oregon Carpal Tunnel Syndrome Treatment Guideline</i>	7.8 (min. rating = 3 max. rating = 9.5)	9.0 (min. rating = 8.5 max. rating = 9.5)	6.5 (min. rating = 3 max. rating = 9)
• <i>Washington Medical Treatment Guideline: Diagnoses and Treatment of Work-Related Carpal Tunnel Syndrome</i>	7.0 (min. rating = 4 max. rating = 9)	8.3 (min. rating = 8 max. rating = 9)	5.7 (min. rating = 4 max. rating = 7)
• <i>California Hand and Wrist Guideline</i>	5.4 (min. rating = 3 max. rating = 8.5)	5.7 (min. rating = 3 max. rating = 8.5)	5.2 (min. rating = 4 max. rating = 7.5)
Back or Spine Guidelines			
• <i>Texas Spine Treatment Guideline</i>	6.3 (min. rating = 4 max. rating = 8.5)	5.8 (min. rating = 4 max. rating = 8.5)	6.8 (min. rating = 5 max. rating = 8)
• <i>Florida's Low-Back Practice Guideline</i>	7.3 (min. rating = 5 max. rating = 8.5)	7.3 (min. rating = 6 max. rating = 8.5)	7.2 (min. rating = 5 max. rating = 8.5)
• <i>Washington Low-Back Medical Treatment Guideline</i>	6.3 (min. rating = 4 max. rating = 9)	7.0 (min. rating = 4 max. rating = 8.5)	5.5 (min. rating = 4 max. rating = 8)
• <i>California Treatment Guidelines: Neck Problems and Low Back Problems</i>	6.8 (min. rating = 5 max. rating = 8.5)	7.3 (min. rating = 5 max. rating = 8.5)	6.2 (min. rating = 4 max. rating = 7.5)
• <i>Minnesota Low-Back Pain Treatment Guideline</i>	6.6 (min. rating = 5 max. rating = 9)	7.7 (min. rating = 6 max. rating = 9)	5.5 (min. rating = 5 max. rating = 6.5)

Source: Research and Oversight Council on Workers' Compensation, 1999.

In general, the chiropractic reviewers assigned both Texas guidelines higher ratings than the physician reviewers and assigned lower ratings than the physician reviewers for every other state guideline.

Testing and Treatment Guideline Comparisons

In addition to comparing both the thoroughness and ease of use of the treatment guidelines, the clinical reviewers also examined the proposed tests and treatments included in each of these guidelines, as well as timeframes associated with these proposed tests and treatments.

Excessive Testing and/or Treatment

Overall, most clinical reviewers felt that none of the treatment guidelines reviewed promote excessive testing and/or treatment for work-related injuries. Some reviewers said that since the guidelines provide only “suggestions and not requirements for testing,” “excessive testing and treatment is...based more on the physician’s philosophy and method of treatment.” This finding is interesting, since all of the clinical reviewers generally agreed with the deficiencies noted in the comparison of the Texas treatment guidelines relative to other states’ guidelines, as described in Section IV of this report.

Two clinical reviewers (one physician and one chiropractor reviewer), however, concluded that both Texas treatment guidelines and California’s *Hand and Wrist Treatment Guideline* promote excessive testing and treatment since they group several series of diagnoses together into a specific guideline (i.e., one set of treatment and diagnostic tables for multiple diagnoses).²⁶ This grouping results in a broader scope of potential tests and treatments that may be considered part of the normal course of treatment for an injury.

Additionally, one reviewer noted that “no specific rationales are listed for any of the diagnostic procedures” in either of the Texas guidelines (with the exception of the *Spine Treatment Guideline* when spinal surgery is being considered). This reviewer also noted that the Texas guideline “may promote excessive use of conservative care...in the form of unattended

²⁶ One reviewer also stated that Oregon’s Carpal Tunnel, California’s Low-Back, and Minnesota’s Low-Back treatment guidelines may promote excessive use of specific kinds of treatments.

modalities, attended modalities and procedures, orthotics and splints, and manipulation” since these treatments are available in all three treatment timeframes (i.e., primary, secondary, and tertiary) and may, as a result, be continuously provided to an injured worker over time.²⁷

This same reviewer noted that the Texas *Spine Treatment Guideline* does not “adequately address the psychosocial aspect of care” because it assumes that these barriers are not present during the primary treatment timeframe (0-8 weeks). These psychosocial barriers (i.e., depression, loss of status as primary wage earner for the household, marital or financial stress, etc.) may prevent an injured worker from responding favorably to treatments and as a result may encourage excessive use of treatments and/or diagnostic testing.²⁸

Restrictive Testing and/or Treatment

None of the clinical reviewers thought the Texas treatment guidelines were too restrictive or limiting in the use of testing or treatment for work-related injuries.

Four reviewers (one physician and three chiropractors) commented that Washington’s *Carpal Tunnel Syndrome Treatment Guideline* might limit treatment because it is “limited to the wrist only, without regard to the possibility of forearm, shoulder, thoracic outlet or cervical problems.” Two reviewers stated that California’s *Hand and Wrist Treatment Guideline* may restrict treatment for carpal tunnel syndrome because it limits the application of “appropriate manual/manipulative therapies, including joint and soft tissue mobilization” for a maximum of 12 treatment visits. One reviewer thought California’s *Neck and Back Treatment Guideline* may limit the use of plain x-rays in the initial stage of treatment for back injuries, and another reviewer thought that Oregon’s *Carpal Tunnel Treatment Guideline* was “less comprehensive in both the treatment and diagnostic areas” than other similar guidelines.

²⁷ Attended modalities are physical medicine treatments that require constant health care provider supervision; examples include electric stimulation (manual), ultrasound, and contrast baths. Examples of unattended modalities include hot and cold packs, whirlpool use, diathermy, and paraffin baths.

²⁸ “Social, economic, and psychological factors have been reported to be more important than physical factors in affecting the symptoms, response to treatment, and long-term outcomes of patients with chronic low-back

Inappropriate Diagnostic Tests and/or Treatments

When asked if the guidelines reviewed included any diagnostic tests or treatments that may be deemed “inappropriate” for either carpal tunnel syndrome or back injuries, four of the six clinical reviewers replied “no.”

One of the remaining two reviewers (a chiropractor) commented that manipulation in the secondary and tertiary treatment timeframes for carpal tunnel syndrome may be inappropriate. The Texas *Upper Extremities Treatment Guideline* includes manipulation as an acceptable treatment in the primary, secondary, and tertiary treatment timeframes. This reviewer states that the “maximum therapeutic benefit to manipulation is realized in the first month of care” and “after three months, the initial advantage of manipulation over other physical medicine procedures is lost.”

The other remaining reviewer (a physician) commented that the organization of the Texas treatment guidelines (by general treatment timeframes for each diagnoses group rather than including an intervention or treatment strategy for each individual diagnosis) may promote excessive care because of the “lack of specificity” in treatment timeframes for each diagnosis. For example, carpal tunnel syndrome is grouped under the larger diagnosis category of “neuropathy.” Under this broad category, the reviewer comments, “many more diagnostic and therapeutic interventions have to be offered as possible alternatives thus increasing the possibility of . . . inappropriate care.” As a result, the reviewer states “if the actual diagnosis is in fact carpal tunnel syndrome, manipulation, although not a medically necessary or appropriate intervention for carpal tunnel syndrome, is listed as such.” Other types of treatments, such as work hardening and work conditioning, are also listed as appropriate for carpal tunnel syndrome. This reviewer concludes “there is no medical necessity for such care with a limited diagnosis such as carpal tunnel syndrome just because it is listed as a possible modality.”

In addition, this reviewer mentions areas that may require additional specificity regarding when and how long certain treatments are medically appropriate for specific types of injuries:

problems.” See U.S. Department of Health and Human Services, Agency for Health Care Policy and Research, *Acute Low Back Problems in Adults* (1994), p. 91.

- Work hardening and work conditioning programs;
- Physical therapy (especially “passive modalities”);²⁹
- Chiropractic manipulations for injuries other than spinal injuries and greater than one month from injury;
- Repeat nerve blocks;
- “Pain clinic” interventions;
- Trigger point injections, acupuncture;
- Other pain management therapies; and
- Spine surgery, especially multiple surgeries.

Summary of Clinical Review

Although six clinical reviewers ranked both the Texas *Spine Treatment Guideline* and the Texas *Upper Extremities Treatment Guideline* lower on average than most other similar state treatment guidelines in terms of thoroughness and ease of use, four of these reviewers concluded that none of the state treatment guidelines reviewed (including the Texas guidelines) promoted excessive treatment or testing.

Two reviewers, however, concluded that both Texas guidelines promote excessive testing and treatment since they:

- include one general set of treatment and diagnostic tables for multiple diagnoses resulting in a broader scope of potential tests and treatments than may be considered part of the normal course of treatment for an injury; and
- do not list specific rationales for any of the diagnostic procedures.

None of the clinical reviewers felt that the Texas guidelines were too restrictive or limiting in the use of testing or treatment.

²⁹ Examples of passive physical therapy modalities include massage therapy and hot and cold packs.

Four of the six reviewers did not identify any inappropriate tests or treatments in the guidelines reviewed (including Texas). Two reviewers noted areas where the Texas guidelines were lacking:

- one reviewer felt that manipulation in carpal tunnel syndrome cases was inappropriate after the initial treatment timeframe;
- a second reviewer noted a lack of specificity in the Texas guidelines which may lead to excessive treatment.

Section VI: Conclusions and Recommendations

In an attempt to curb increasing medical costs, the Texas Legislature in 1989 gave the Texas Workers' Compensation Commission (TWCC) the authority to institute medical fee and treatment guidelines to help control medical costs (through medical fee capitation and treatment utilization controls) while ensuring quality medical care for injured workers.

Despite these cost containment measures, medical costs in Texas continue to increase. One recent comparison by the National Council on Compensation Insurance (NCCI) reported that the average expected medical cost of a workers' compensation claim in Texas (i.e., actual benefits paid plus projected medical benefits) has increased from \$2,909 for policy year 1988 (as of 1993) to \$4,912 for policy year 1995 (as of 1999), a difference of 68.9 percent.³⁰

In order to achieve both quality medical care and effective cost control, the usage and usefulness of the treatment guidelines must be assured. However, information recently collected from health care providers and insurance carriers indicates that a substantial segment of providers and carriers either do not have or do not actively use the TWCC treatment guidelines to evaluate medical treatment for work-related injuries. Additionally, there seems to be no real consensus from either health care providers or insurance carriers on whether the TWCC medical treatment guidelines meet the needs for which they were designed – that is, to ensure quality medical care and control costs by reducing controversy over the medical necessity of treatments. This finding is interesting considering that both health care providers and insurance carriers generally felt that the guidelines were useful in determining which medical treatments were reasonable and necessary.

This contrast may be the result of a fundamental difference in the medical treatment philosophy between health care providers and insurance carriers. Namely, the treatment guidelines may be specific enough to support the treatment philosophies of both parties, but also may be too broad to provide any consensus on what type and duration of treatment is reasonable and necessary for a specific injury. Without this consensus, a treatment guideline will not be a useful tool to

reduce the over-utilization of unnecessary medical care or to ensure quality care for workers by reducing unsubstantiated medical denials.

Complete consensus about whether the Texas treatment guidelines promote excessive treatments and testing cannot be found even among the six clinical reviewers chosen for this study. Four reviewers concluded that none of the treatment guidelines they reviewed (including treatment guidelines from Texas and five other states including Washington, Florida, Minnesota, California, and Oregon) encouraged excessive treatment or testing utilization, while the two remaining reviewers concluded that some of the treatment guidelines (including both Texas treatment guidelines) promoted excessive testing and treatment.

In June 1999, TWCC proposed an amended version of its 1995 *Spine Treatment Guideline* and held a public hearing in August 1999 to collect public comment.³¹ The proposed revision includes: updated language to make the *Spine Treatment Guideline* consistent with other Texas guidelines (specifically, the *Upper and Lower Extremities Guidelines*); additional information in the ground rules section on specific treatments and tests (e.g., discography, manipulation, spinal injections, TENS units, etc.); and additional documentation requirements, among other changes. These proposed changes reflect a growing need for more detailed information on the types of treatments and tests that are appropriate and inappropriate for work-related injuries.

Recommendations

In light of the comparison between treatment guidelines in Texas and other states, it is clear that improvements can continue to be made to the Texas guidelines. These improvements may enable both health care providers and insurance carriers to consistently make informed decisions regarding the medical necessity of treatments for injured workers. Improving this consistency will help reduce confusion and friction between health care providers and insurance carriers over the medical necessity of proposed treatments since both parties would be able to use the

³⁰ This national average excludes states such as California, Massachusetts, Minnesota, New Jersey, and New York. See National Council on Compensation Insurance, *Annual Statistical Bulletin*, 1993 and 1999 editions.

³¹ The proposed TWCC *Spine Treatment Guideline* was also published in the June 25, 1999 edition of the *Texas Register* for public comment.

guidelines as a basis for the determination of care. In order to make these improvements, however, ROC staff suggests the following:

- Each proposed testing and treatment option in a treatment guideline should include a set of indicators describing when and how long the proposed test/treatment (including surgery) is appropriate and when it is inappropriate. If possible, the guideline should include expected numerical results for diagnostic tests. These changes would bring Texas guidelines in line with other state and federal guidelines and allow the reader to better understand the advantages and disadvantages of each proposed test/treatment.
- All Texas treatment guidelines should contain diagnostic testing and treatment phases that coincide with each other, and are consistent across different guidelines. This would assist health care providers in tracking the injured worker's medical progress through each phase of testing and treatment and eliminate confusion for health care providers and insurance carriers who currently must keep track of various testing/treatment phases for different injuries in different guidelines.
- The treatment guideline development process should include a wide range of medical disciplines involved in the workers' compensation system to ensure that there are expert opinions in all aspects of care.
- Treatment guidelines should be developed using scientifically valid medical research found in professional peer-reviewed publications, and evidence of the medical research should be found in the body of the guidelines. Each proposed treatment/test should be evaluated by: 1) the amount of research available on the treatment/test; and 2) whether there is health care provider consensus on the appropriateness of the treatment/test. Careful scrutiny should be applied to any test/treatment that is not supported by clinical research.
- The treatment guideline development process should continue to include an in-depth review of guidelines developed in other states, at the national level, and in the private sector.

Reviewing information available from these sources is an efficient way to enhance the usefulness of the Texas guidelines and stay informed on current developments.

- Education efforts should be improved for all system participants in Texas. As stated earlier, a significant portion of health care providers and insurance carriers either do not have or do not use the guidelines. Since the system cannot reap the full benefits of the guidelines if they are not used or if they are under-used, it is important that TWCC continue to expand its education programs. TWCC may need to re-examine its education strategy and resource requirements in order to meet this objective.

However, it is clear that health care providers and insurance carriers do not always reach consensus on the medical necessity of treatments and tests, even within the context of a comprehensive treatment guideline. If the use of a comprehensive guideline (such as the *Texas Upper Extremities Treatment Guideline*, which includes treatment parameters for several diagnoses) does not result in sufficiently consistent guidance and outcomes, then it may be necessary to create more focused clinical guidelines directed at a specific type of treatment (e.g., treatments that are highly utilized or contested frequently).

To summarize, treatment guidelines can be an effective mechanism to educate system participants about new treatments and positive treatment outcomes; improve consistency in the care provided to injured workers; reduce controversy between health care providers and insurance carriers over what course of treatment is appropriate and cost-effective; and control the utilization of unnecessary medical care (treatment guidelines are widely used among states with lower average medical costs).³²

It is important to note that treatment guidelines should not be created or used to dictate the type and duration of medical care necessary for each individual injured worker. They should,

³² The average expected medical cost of a workers' compensation claim in Texas (i.e., actual benefits paid plus projected medical benefits) as of 1999 for policy year 1995 is \$4,912, compared to Florida (\$4,844), California (\$2,650), Minnesota (\$1,919), and Oregon (\$2,968). See National Council on Compensation Insurance, *1999 Annual Statistical Bulletin* (1999).

however, be used to represent a normal course of treatment that applies to workers in most cases. In order to be effective, treatment guidelines should be:

- 1) Thorough -- Treatment guidelines should contain all necessary treatment and tests and relevant information needed to evaluate the medical necessity of the treatments and tests;
- 2) Easy to use -- Treatment guidelines should contain a combination of treatment descriptions, tables and algorithms as well as easily accessible research citations; and
- 3) Enforceable -- Treatment guidelines should contain clear treatment and testing parameters that are associated with an injured worker's normal course of care as well as clear documentation standards for medical care that falls outside the guideline's treatment parameters. Additionally, treatment guidelines can be used to identify health care providers and insurance carriers whose practices consistently fall outside the guidelines.

Treatment guidelines, however, may create more friction in the system than they deter, particularly if they are too broad in scope, lack adequate clinical research documentation, are cumbersome to use, or are not used at all. In addition, treatment guidelines that do not clarify the medical necessity and duration of proposed treatments and tests may further complicate disagreements between health care providers and insurance carriers because they may encourage subjective interpretation and use of the guidelines.

In these cases, the state workers' compensation administrative agency uses vital staff and monetary resources to create and revise the guidelines, while health care providers and insurance carriers use other methods (i.e., their own clinical experience and training; in-house treatment and testing protocols; contracted utilization review agent services; peer reviewers; and ultimately the medical dispute resolution process) to determine the type and duration of medical care necessary for each worker. It is clear that the role of treatment guidelines in the Texas workers' compensation system should continue to be examined if they are to be effective in reducing medical disputes, controlling costs, and ensuring quality care for injured workers in Texas.

TECHNICAL APPENDIX A

Sampling Method for Health Care Provider and Insurance Carrier Surveys

Table A1
Survey Dispositions and Response Rates

Health Care Providers		Insurance Carriers	
Bad Addresses	22	Bad Addresses	0
Completed Surveys	277	Completed Surveys	40
No Response	201	No Response	32
Total Sample Size	500	Total Sample Size	72
Response Rate	57.9%	Response Rate	55.6%

Source: Research and Oversight Council on Workers' Compensation, Medical Treatment Guideline Survey, 1998.

Characteristics of Health Care Providers Who Responded to the Survey

Table A2
Distribution of Health Care Providers Who Responded to the Survey

Type of Health Care Provider	Percentage
Doctor of Medicine	57.1%
Doctor of Osteopathy	4.4%
Doctor of Chiropractic	27.8%
Physical Therapist	5.5%
Other	5.2%
Total	100.0%

Source: Research and Oversight Council on Workers' Compensation, Medical Treatment Guideline Survey, 1998.

Note: "Other" includes neurologists, occupational therapists, registered nurses, and other health care providers/administrative staff.

TECHNICAL APPENDIX B – Clinical Reviewer Profiles

Physician reviewer No. 1

Physician reviewer number 1 received his medical degree in 1980, is certified in Physical Medicine and Rehabilitation (PM&R) and has been in private practice since 1987. This reviewer also works with orthopedic and spinal cord injury patients at a Texas rehabilitation hospital.

Physician reviewer No. 2

Physician reviewer No. 2 received his medical degree in 1967. This reviewer has practiced in the area of Physical Medicine and Rehabilitation since 1984, received specialty certification from the American Board of Physical Medicine and Rehabilitation in 1985, and was named a fellow of the American Academy of Physical Medicine and Rehabilitation in 1986.

Physician reviewer No. 3

Physician reviewer No. 3 received his medical degree in 1973, and has been a practicing orthopedic surgeon since 1979. This reviewer has been an assistant professor at a Texas college and has served as a Team Physician for college and professional football teams.

Chiropractic reviewer No. 1

Chiropractic reviewer No. 1 received his Doctor of Chiropractic in 1986. This reviewer has been in private practice from 1987 to 1990, was an associate from 1990 to 1992, and resumed his private practice in 1992 until present.

Chiropractic reviewer No. 2

Chiropractic reviewer No. 2 received his Doctor of Chiropractic in 1985. This reviewer is currently an Assistant Professor at a Texas Chiropractic College.

Chiropractic reviewer No. 3

Chiropractic reviewer No. 3 received his Doctor of Chiropractic in 1988. This reviewer is in private practice in central Texas and has served as an Associate Clinical Director, and later Clinical Director at a chiropractic medical facility in Texas from 1989 to 1991.

TECHNICAL APPENDIX C – Questions for Clinical Reviewers

- 1) For each of the treatment guidelines, rate from 1-10 (with 10 being the best), how thorough and easy to use each guideline is.
- 2) Which guideline(s) has the best rationale for specific diagnostic testing and/or treatments? Why?
- 3) Would any of these guidelines promote excessive testing or treatment? Why?
- 4) Would any of these guidelines be too restrictive or limiting in testing or treatment? Why?
- 5) For reasons other than scientific rationale, do you believe any of these guidelines promote a specific type of testing or treatment or specific health care discipline? If yes, please explain.
- 6) Do you believe these guidelines would be beneficial in the treatment of work related injuries?
- 7) Have you used any of these guidelines or one(s) with similar format?
- 8) Do you think narrative, table, or algorithm formats (or a combination of those formats) are the easiest to understand and use?
- 9) Are you familiar with other guidelines regarding treatment of back injuries or carpal tunnel syndrome? Please name them and explain if you think those guidelines are better than the guidelines you have reviewed for this project.
- 10) Do you agree with the general timelines laid out for diagnostic testing? Please explain.
- 11) Do you agree with the timelines laid out for treatment?
- 12) Are there diagnostic tests and/or treatments laid out in these guidelines that you feel are inappropriate for the diagnostic codes listed?
- 13) Are the narrative and graphs included in the consultant's report clear and consistent with your review of the guidelines?
- 14) Do you agree with the consultant's conclusions in her report? Please explain.
- 15) Do you think that additional information from the treatment guidelines should be added to the consultant's report? If so, what specifically should be added?
- 16) Do you think the consultant compared and contrasted the Texas treatment guideline against the other guidelines in your possession? If not, what should have been included in the comparisons?
- 17) Do you provide care for Texas workers' compensation injured workers? If so, please give an estimate of the percentage of your patients that are workers' compensation related.