The Croft Whiplash Management Guidelines (R2)

Results of a Preliminary Practice Survey

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Introduction

Chiropractic physicians who care for cervical acceleration/deceleration (CAD or whiplash) patients with any degree of regularity are often confronted by representatives of third party payers concerning the issue of alleged excessive utilization. The ensuing dispute is typically based on opinion, company policy, or misinformation, rather than the common practice patterns of chiropractic physicians within the community. There is a dearth of information available in the chiropractic literature to give assistance to anyone engaged in one of these disputes. In 1993, however, Croft published a set of management guidelines in the *ACA Journal* (1). These guidelines have also been published in *Whiplash Injuries: the Cervical Acceleration/Deceleration Syndrome,* 2nd edition (2) in 1995 and in a recent Canadian practitioner's guide to whiplash injuries, sanctioned by the Canadian Chiropractic Association (3). (Note: these guidelines also appeared in the 3rd edition of that textbook in 2001.) This paper will endeavor to make a case for the general adoption of the Croft Guidelines by practitioners as well as payers for evaluating the reasonableness of CAD treatment.

Development of Treatment Guidelines

Historically, a number of different methods have been employed in the development of guidelines. The RAND Corporation used the so-called delphi technique in developing cervical manipulation guidelines (2). A panel of experts (including myself) from divergent fields analyzed the evidence for support of treatment by cervical spine manipulation and ranked a large series of potentially treatable conditions accordingly.

Another method of guideline development comprises practice surveys. This method has also been used by RAND and was utilized by the Spine Research Institute of San Diego to develop the Croft Guidelines for the treatment of CAD injuries. A review of 2,000 cases, graded as to severity (i.e., Grades I-V - see Table I), provided the basis for the Croft Guidelines (see Table II). Subsequently, the Insurance Research Council (IRC) reported that the average number of treatments provided by DCs in cases of CAD trauma was 32 (5). Considering that most CAD injuries requiring treatment will be graded either Grade I, II, or III, this serves to validate the guidelines to some degree. In a practitioner survey recently conducted in the state of Washington, the average number of treatments rendered under the general heading "trauma" was reported to be 34 (6). Similarly, we have recently been informed by a representative of the Manitoba auto insurance company that the average number of treatments rendered by DCs for whiplash was 33 (7). Most recently, the grading system originally developed by Croft, and later adopted by the Quebec Task Force on Whiplash Associated Disorders (WAD), was validated in regard to its ability to predict outcome (8). We used the authors' breakdown

of patients into grades of severity (14% grade I; 83% grade II; 3% grade III) and applied the guidelines. Based on maximal guideline allowance, the average number of treatments would again fall in the mid 30s, consistent with other data.

The fact that the average number of treatments is about 32-34, however, doesn't in any way imply that this is the optimal in terms of treatment results. It is quite likely that less than optimal care was provided in many cases, since many DCs—like their medical counterparts—are not well trained in managing these cases. Optimizing treatment methods would very likely result in both reduced treatment duration and improved outcomes. Nevertheless, these numbers do represent current practice standards.

The Croft Guidelines have been a part of our literature now for more than a decade. The Croft Guidelines are applicable independent of disability status, and have now been adopted by several American state chiropractic organizations and associations (AK, UT, OH, CO, NC, SD, KY, WA) and one state board of examiners (OK), as well as in at least one Canadian province. They are the only widely published CAD guidelines and they are based on actual practice patterns of chiropractic physicians, patterns which appear to be consistent throughout North America.

Table I – Grades of Severity of Injury

Grade I	Minimal; No limitation of motion; No ligamentous injury; No neurological findings
Grade II	Slight; Limitation of motion; No ligamentous injury; No neurological findings
Grade III	Moderate; Limitation of motion; Some ligamentous injury; Neurological symptoms
Grade IV	Moderate to Severe; Limitation of motion; Ligamentous instability; Neurological symptoms; Fracture or disc derangement
Grade V	Severe; Requires surgical management/stabilization

Table II – Guidelines for Frequency and Duration of Care in Cervical Acceleration/Deceleration Trauma (2)

	Daily	3x/wk	2x/wk	1x/wk	1x/mo	T_D	T_N
Grade I	1 wk	1-2 wk	2-3 wk	<4 wk	—[1]	<11 wk	<21
Grade II	1 wk	<4 wk	<4 wk	<4 wk	<4 mo	<29 wk	<33
Grade III	1-2 wk	<10 wk	<10 wk	<10 wk	<6 mo	<56 wk	<76

Grade IV	2-3 wk	<16 wk	<12 wk	<20 wk	—[2]	—[2]	—[2]
Grade V	Surgical stabilization necessary—chiropractic care is post-surgical						

T_D = treatment duration; T_N = treatment number.
[1] Possible follow-up at 1 month.
[2] May require permanent monthly or p.r.n. treatment.

Most recently, we have been conducting an informal practitioner survey as a prelude to a more formally applied study. This study is ongoing and readers are encouraged to participate. At the website www.srisd.com, a site with an average current visitation frequency of over 6,000/week—about 61% of whom are chiropractic physicians—we ask practitioners with DC degrees to estimate the number of treatment visits required for their average CAD patient. The results of this preliminary survey are illustrated in Figure 1. While our results, of course, don't allow us to draw firm conclusions about the breakdown of injury grades, nor the appropriateness of care, they would be roughly concordant with a mix of Grade I-III patients, with a smaller number of Grade IV. I believe a significant portion of persons with Grade I injuries self-treat only and that the majority of those seeking care would be Grade II. This is what most recent studies are showing.

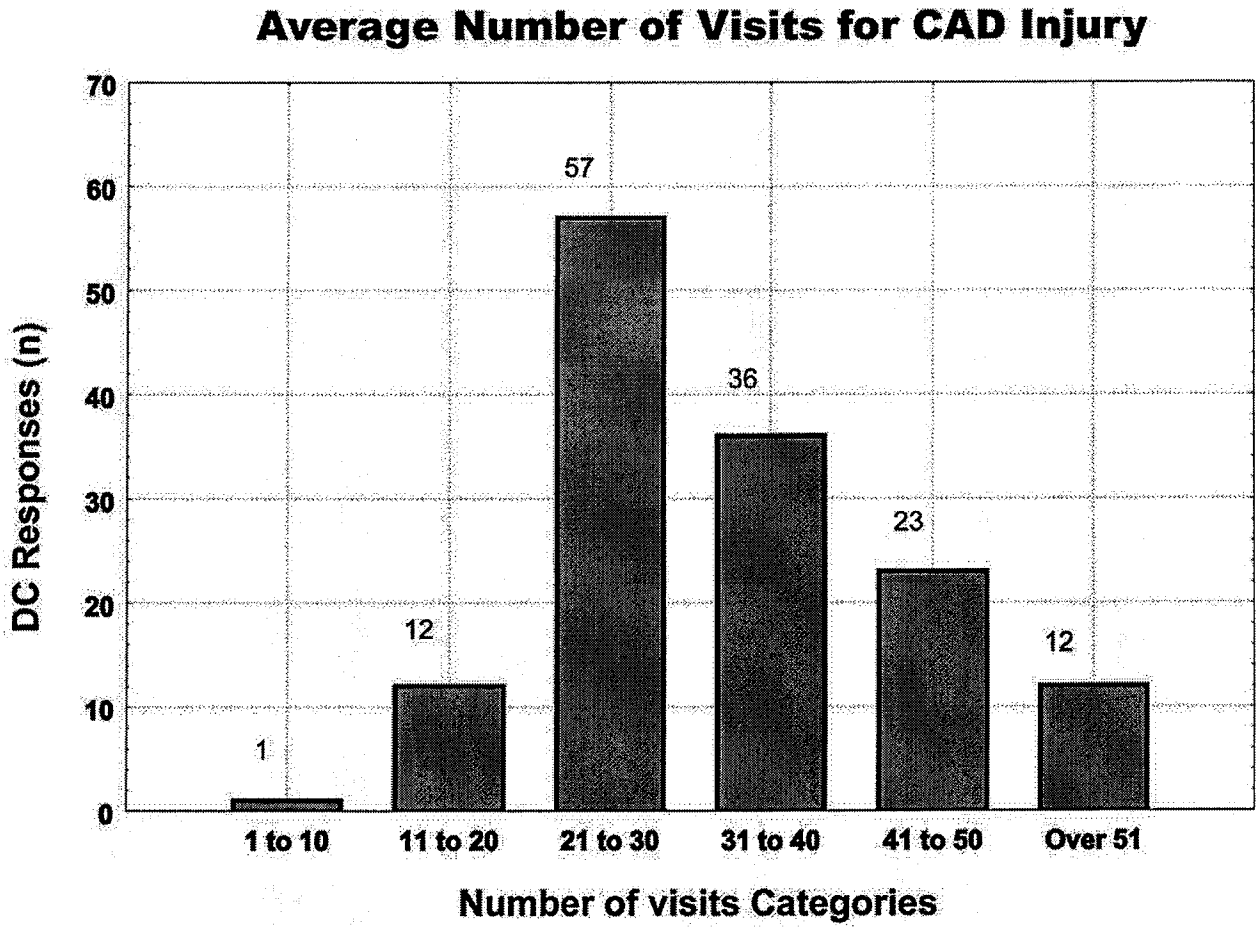

Figure 1. Results of a recent preliminary survey conducted at www.srisd.com for practitioners with DC degrees. The results would be consistent with a mix of Grades I through III CAD injuries, with the majority graded as II.

Application of Guidelines

Reasonable and equitable peer review requires a serious consideration of an individual patient, his/her complaints, and the physical and laboratory findings, along with a consideration of known risk factors and complicating features. It is scientifically, clinically, and ethically unsound to apply any practice guideline without such consideration. The consanguineous marriage of statistics and guidelines—in the vacuum of clinical information—provides nothing more than an example of a wrong question inviting an irrelevant answer. In the meantime, we do have guidelines which, like science, are thankfully self-correcting over time.

As with most guidelines, the Croft Guidelines assume that the patient's response to care is the best measure of the need for care, and that complicating factors may increase the need for care. Table III is a partial list of factors that may complicate and prolong the need for care in the management of CAD cases. However, it is important to note that these guidelines are not intended as recommended treatment plans or prescriptions for care; many patients, particularly those without complicating features, will not require the maximum treatment numbers and duration allowed by these guidelines. Conversely, other patients, due to complicating factors such as advanced age, prior disease, etc., might require treatment approaches exceeding the guidelines. As always, a clinician's most important management compass is the patient.

Guidelines further allow clinicians to gauge their own clinical efficacy and, in some cases, to suspect that occult lesions may be present. Some patients may require upgrading or downgrading as more clinical or laboratory information becomes available.

Table III – Common Factors Potentially Complicating CAD Trauma Management

Advanced age
Metabolic disorders
Congenital anomalies of the spine
Developmental anomalies of the spine
Degenerative disc disease
Disc protrusion (HNP)
Spondylosis
Facet arthrosis
Rheumatoid arthritis or other arthritides affecting the spine
Ankylosing spondylitis or other spondylarthropathy
Scoliosis
Prior cervical spinal surgery
Prior lumbar spinal surgery
Prior vertebral fracture
Osteoporosis
Paget's disease or other disease of bone

Spinal stenosis or foraminal stenosis Paraplegia or quadriplegia Prior spinal injury

Using these guidelines properly

Guideline misuse can hinder their widespread adoption, so it is critical to use them appropriately. It is important to remember that a guideline is simply a set of general rules to follow, which allow clinicians to make rational decisions regarding specific cases. These guidelines should not be viewed as prescriptions, allowances, or recommendations for treatment. Thus, they do not supercede the basic tenets of ethical practice parameters. For example, when a patient has returned to his or her preinjury status, or if it is apparent that no further treatment will provide a significant benefit, no further treatment is indicated even if the maximal number of visits in that particular grade of CAD severity may be greater. Conversely, there will be circumstances in which the guidelines will not apply to a patient and the guideline periods may need to be exceeded. No guidelines can be applied to every patient. Practitioners who can document that continued care is justifiable on the basis of its mitigation of significant pain or disability, will continue to treat beyond the guidelines. The guidelines anticipate that patients with few complicating factors which might impede healing should not require the maximum treatment durations as provided in the guideline table.

Why and how adopting guidelines can benefit patients and providers

Until the state of Oklahoma Board of Chiropractic Examiners adopted these guidelines, file reviewers and IME doctors working for various insurance companies, HMOs, PPOs, etc., were left to their own devices for determining reasonable and customary treatment schedules. This often led to unreasonable denials of care based on individual biases and reliance on unscientific literature. For example, the theory that most CAD injuries resolve in 6-12 weeks simply hasn't been able to stand up to scientific scrutiny and is overly sanguine, yet is extremely prevalent in defense circles. Similarly, many operate under the misconception that injuries are unlikely in the absence of significant property damage to the involved vehicles. Again, the evidence to support this view is lacking, while the countervailing evidence is overpowering.

Now, peer (file) reviewers and IMEs alike are required to follow the guidelines above, which allows for a more reasonable treatment schedule. Now, disputes are more focused and academic; for example questioning the determination of one grade vs. another rather than following flawed theories of outcome.

I recently spoke to a chiropractic group in Florida. The organizer related an interesting story. It seems that several years ago the state had adopted a peer review system which had identified his young associate as having overtreated one female patient. This alleged overtreatment was based on the opinion of one of the reviewers. Subsequently, the Attorney General's office seized the chiropractor's records and launched a long and drawn out investigation of possible insurance fraud. The potential ramifications of this investigation included—in addition to large attorney fees—loss of licensure and even prison time. This case dragged on for two or three years. Finally the file reviewer was deposed by the associate's attorney. The attorney noticed that the reviewer's CV included a reference to having

been through Croft's training program in whiplash. He was asked if the program was scientific and whether he subscribed to most of the theories taught, answering in the affirmative. He was then shown the textbook (2) and the patient's medical records and asked to determine the patient's grade of injury. He was then asked to look at the guidelines and state again whether her treatment had been either reasonable or excessive. Since she had undeniable neurological involvement, she fit into the Grade III category. This reviewer then looked at the attorney and said, "I guess the treatment was reasonable." The AG's case was dropped. This prolonged and pointless investigation could have been obviated had the state adopted these guidelines.

What other guidelines have been developed for whiplash trauma?

ACOEM Guidelines With regard to whiplash, the American College of Occupational and Environmental Medicine (ACOEM) guidelines mention the condition only to convey the advice made by the Quebec Task Force in 1995, which was for patients to remain active as opposed to having prolonged rest or immobilization. These guidelines, which have recently been adopted by the state of California, are aimed primarily at workers compensation claims, but do provide general algorithms of management which chiefly follow a medical paradigm. And, although the authors do provide statistical data on disability periods, they do not make specific recommendations regarding treatment or treatment durations. Some diagnostic and treatment approaches are not recommended on the basis of evidence-based medicine. Spinal manipulation is among the treatment methods acknowledged as effective for both neck, upper back, and lower back pain.

Acute Low Back Problems in Adults, Clinical Practice Guideline Number 14, U.S. Department of Heath and Human Services Public Health Service. These guidelines, which are occasionally and somewhat erroneously referred to as the "federal guidelines," were promulgated by the Agency for Health Care Policy and Research (AHCPR) in 1994. The authors point out that they do not consider children or adults with chronic low back pain. Needless to say, they are also not intended to be used as guidelines for the treatment of whiplash injuries.

Guidelines for Chiropractic Quality Assurance and Practice Parameters (Proceedings of the Mercy Center Consensus Conference) The Mercy guidelines, as they are most often referred to, provide general guidelines to chiropractic practitioners across a broad range of clinical subjects. However, there is no specific provision for the treatment of whiplash injuries in this document.

Procedural/Utilization Facts: Chiropractic/Physical Therapy Treatment Standards—A Reference Guide, 5th edition. Also known commonly as the Olsen Guidelines, this 159-page document, authored by Richard E. Olson, DC, published by Data Management Ventures, Inc. Dr. Olson is also the author of *Fee Facts, Prevailing Fees For Rehabilitative Medicine, A Reference Guide,* and author of the *Chiropractic Services Program, Managed Care Treatment Plans, A Reference Guide.* The Olson Guidelines mention "whiplash" three times: twice in reference to PT modalities, and once in a somewhat vague reference to manipulation. In no case does he discuss treatment frequency or duration in reference to whiplash injuries.

QTF Guidelines In 1995 the Quebec Task Force on Whiplash-Associated Disorders published the results of their best-evidence synthesis (Spitzer WO, Skovron ML, Salmi LR, Cassidy JD, Duranceau J, Suissa S, Zeiss E: Scientific monograph of the Quebec task force on whiplash-associated disorders: redefining "whiplash" and its management. *Spine* (Supplement) 20(8S):1S-73S, 1995). The study has been widely acknowledged in the international scientific community, but it has also received

widespread criticism for violating the very promise of best-evidence synthesis because the authors ultimately resorted to consensus-based—rather than evidence-based—methods (Freeman MD, Croft AC, Rossignol AM: "Whiplash Associated disorders: redefining whiplash and its management" by the Quebec Task Force: a critical evaluation. *Spine* 23(9):1043-1049, 1998).

The authors developed a guideline for whiplash management based largely on the combination of a small number of papers and a consensus of their own opinions. Spinal manipulation was considered one appropriate means of treatment. If a patient remains out of work for more than three weeks, specialist advice should be sought, they said. If out of work for six weeks, a multidisciplinary team evaluation is recommended. For persons not out of work, however, these guidelines do not apply.

Reed Group, Ltd. *The Medical Disability Adviser: Workplace Guidelines for Disability Duration*, 4th edition (2001) is edited by Presely Reed, MD. In total, there are 2685 pages of text covering everything from abdominal aneurism to herpes zoster. In the preface he writes, "The *Medical Disability Advisor* is intended to be used as a tool against which the user should weigh the totality of his or her available knowledge and the specific information [of the individual case]. [And] Please use this tool judiciously, tempering your decisions with thoughtfulness and compassion." There are no recommendations for either medical or chiropractic care in the treatment of whiplash patients.

Whiplash: A Practitioner's Guide to Understanding Whiplash Associated Disorders (WAD) This was the result of a collaborative effort of numerous authorities at the behest of the Canadian Chiropractic Association. The 210-page guide was published in 2000 and distributed to all Canadian chiropractors by the CCA. The guide explores the topics of WAD physiology, symptomatology, grading issues, management, legal and road safety issues, third party payers, and the practitioner's role in reporting and note-taking. In chapter 4.2, "Standardized WAD Grading Systems," the Croft treatment guidelines are introduced.

How will insurers react to guideline adoption?

The insurance industry has developed a number of strategies over the years to attempt to control or contain what they view as runaway costs. Most recently, Farmers Insurance has been misquoting the above-mentioned Reed Group as a justification for claim denial beyond an arbitrary point. Letters are being generated from the Farmers National Document Center in Oklahoma City which state that the Reed guidelines report that, "the standard practice for length of treatment for the type of injury your patient sustained is from 2 to 12 weeks." In truth, the Reed guidelines look only at the duration of disability in the workers compensation world, and there is no reference to 2 to 12 weeks. They also do not discuss treatment.

The most egregious billing practices associated with the chiropractic profession can be traced to a relatively small minority of its practitioners. Sadly, the profession at large suffers the resulting opprobrium and is forced to suffer these desperate insurance industry-based countermeasures. Insurers welcome adoption of reasonable guidelines as a way of managing this problem without having to resort to unfounded and non-defendable methods which potentially expose them to large court settlements and even bad faith lawsuits. Adoption and utilization of guidelines can potentially cut their costs by controlling overutilization. It would potentially require fewer IMEs and reduce the number of lawsuits.

Discussion

In the absence of fundamentally solid guidelines that are universally accepted and utilized by the profession, we can expected to continue to be subjected to the vicissitudes of an inconsistent and generally biased peer reviewer/IME system and insurance claims representatives whose opinions are more often grounded in dogma and driven by financial bottom lines, rather than being grounded in science and driven by the public welfare. It is necessary to take a stand and support a policy that we consider to be in the best interests of our patients; one that is based upon sound clinical experience, practice norms, and the best scientific evidence available.

The Croft Guidelines for the treatment of CAD injuries were developed scientifically and appear to have good face validity, as provided from disparate sources. It is in the best interest of this profession and the patients we treat to adopt the Croft guidelines for management of CAD trauma. Doing so will provide for improved management, will help to identify excessive or unnecessary care, will allow for comparisons of different treatment methods, will allow for fair and equitable peer review, and will forestall the inevitable fate that awaits a profession without a formal and universally ratified guideline in this changing world of managed care. Unless we act in a unified manner, the New Jersey experience is likely to be repeated on a state by state basis.

References

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