



Spring 2002

National Society Business

Judging from the number of positive and supportive comments received concerning our last Newsletter, evidently the membership found the topics relevant and the material informative.. Particularly rewarding to those of us who worked so hard to prepare that Edition was the national scope of the messages of encouragement received. Many of you found the discussion on GST in medicolegal practice of immediate pertinence to your practices. Most enjoyed the eclectic nature of the *Review of Recent Literature* Section.

Necessity and Reasonableness

The overall theme of this Edition is that double conundrum of **Necessity and Reasonableness** (N&R) which we routinely and increasingly confront in various aspects of medicolegal practice.

We present two new Guidelines for medicolegal practice, prepared by the

Standards Committee and initially presented at the recent AGM. Both Guidelines address issues of N&R in the clinical setting, for determining who, other than the evaluatee, may be present; and under what circumstances should audiovisual recording be permitted.

Dr. Don Ranney has kindly submitted an article originally published by him in *Disability Analyst* (2000). He reviews the measures which may be necessary in carrying out an accurate attribution of MSK complaints to work injury.

In the Editor's Note introducing the current *Review of Recent Literature* Section, readers will find a brief discussion of an exemplar of the overall issue of N&R. The references selected address the problem of making N&R decisions in Soft Tissue Injury (STI) rehabilitation. A very significant portion of the membership have indicated to the Executive their common concern over customary but inefficacious treatment practices. It would seem that nation-wide, potentially pseudo-scientific interventions are thriving and expanding, particularly in third-

party funded patient care. Daily, medicolegal evaluators are asked to comment on the N&R of therapeutic approaches, some entrenched by longstanding practice, and others adopted suddenly into widespread practice, all without a rational medical basis in efficacy. The very terms, *Necessity* and *Reasonableness*, are widely used but often with limited appreciation of meaning, and with imprecision and lack of standardization in usage.

The Executive believe that there is an urgency to addressing the N&R issue, insofar as useless treatment is not only wasteful of time and resources but also potentially harmful to patients. Accordingly, the Executive have been exploring options for articulation, and direct leadership initiatives, especially towards having these N&R issues addressed by appropriate public regulatory agencies. In addition to using the Newsletter, we intend to

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New Website www.csme.org

CSME is very excited to announce that our new website is up and running. Visit www.csme.org and see!

As a member you will have some very special website privileges:

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National Society Business continued

develop expert symposia. A Symposium of expert submissions on N&R is in the final planning stages. The Society can also create a Position Statement. As a first step, the Executive have prepared the following **Statement of Concern**, which evolves from the concerns touched on in our *Review of Current Literature*, for treating Whiplash Associated Disorders (WAD).

W.A.D. CARE: NECESSITY AND REASONABLENESS

With reductions in availability for public, outpatient rehabilitative services, MVA patients who sustain relatively uncomplicated soft tissue injuries (WAD I & II) must look mainly to the private sector for their therapy. This trend, coupled with no-fault legislation on rehabilitation funding, has vastly expanded the list of

participating health care professions, almost all of whom may treat patients independent of a coordinating medical prescription. In recent times, there has developed a new, customary practice of providing WAD I and II patients with several months of multimodal and multidisciplinary 'active rehabilitation'.

However, neither necessity nor reasonableness appears to underpin much of this "state of the art" care. Objectively these patients exhibit no features of serious injury. It is still sound, evidence-based medical practice to provide reassurance, mild analgesics, simple, brief physical therapy, and advice to resume normal activity with minimal delay.

Reportedly, in Ontario from 1991 to 2001, post-MVA rehabilitation costs rose from \$300 Million to over \$1 Billion, while persons reporting personal injuries rose from 75 to 163 per 1000

collision claims. Reportedly, private sector rehabilitative services are more costly, yet claimants require longer recovery periods. It would seem that more persons involved in collisions are worried enough to seek therapy, finding it available mainly in the private sector, where intensive, extensive 'active rehab' has become standard practice. Does the marked expansion in interventional services involve large numbers of lightly injured patients who can be expected to recover completely and spontaneously, without state of the art 'active rehab'?

Quality assurance direction, from regulatory colleges working in concert, is urgently needed to avoid ineffectual, redundant or even harmful interventions!

It is clearly time to define and strictly adhere to quality assurance indicators for necessary and reasonable rehabilitation service delivery; to optimize prescription and to utilize effective coordination!

Just when you thought you 'd seen it all

Source: **Cult Med Psychiatry 2001 Sep;25(3):297-316**
 Title: **A unique panic-disorder presentation among Khmer refugees: the sore-neck syndrome.**
 Authors: **Hinton D, Um K, Ba P.**

Synopsis: This article describes a previously unreported cultural syndrome among Khmer refugees. This common presentation of distress centers on the complaint of a sore neck, the sufferer fearing that wind- and blood-pressure may burst the vessels in this area. During an acute episode, a Khmer endures many--if not all--of the following neck-and-head complaints: headache, blurry vision, a buzzing in the ear, and dizziness. While in the throes of the sore-neck attack, the patient frequently experiences palpitations as well as other symptoms of autonomic arousal, such as diaphoresis, shortness of breath, and trembling. A sufferer of sore-neck episodes often meets panic disorder criteria. In a clinic survey, thirty-five out of eighty-five patients (41%) were found to currently suffer the "sore-neck syndrome" (i.e., to have endured at least one episode in the last month), with almost all of these thirty-five patients (80%) fearing death during the acute event. The authors concluded that sore-neck syndrome represents a common and important way in which distress becomes embodied. The clinician must learn this body language; otherwise, the patient's communication of psychic, interpersonal, and physical pain goes unheard--and grave somatic suffering and disability unattended to--discounted as puzzling somatic complaints and unreasonable obsessionism about blood pressure.

Conference Announcement

Motor Vehicle Trauma: Early Warning Signs of Chronicity and Critical Decision-Making in the First Six Weeks

Friday, April 5, 2002, 8am - 5pm

The Faculty Club
 University of Toronto
 41 Willcocks Street, Toronto

Most people with soft tissue injuries return to normal activity, including work, within days or weeks of an accident. Early identification of those who will not follow this pattern is vital in order to intervene in a timely and constructive manner.

<http://csme.org/Pages/Conferences.htm>
 for more information or to register

CSME Standards Committee Report on New Clinical Guidelines

The Standards Committee presented a draft of two new clinical guidelines at the recent AGM. The membership at large is invited to review and comment prior to final draft preparation.

An Independent Medical Evaluation is a complex process in which data from direct Clinical Assessment with the evaluatee and from Documentation Review are synthesized by the evaluator into conclusions pertinent to the issues for which the referral was made. The non-psychiatric Clinical Assessment component typically consists of an Interview and a Physical Examination.

It is the position of the CSME that in certain circumstances, in addition to the evaluator and evaluatee there may be one or more parties whose presence is either essential or desirable to facilitate the process. It is also our position that other than for inclusion of essential parties, the **final decision** as to which parties will be present (as active participant or in passive support) rests entirely with the medical evaluator.

The CSME *recommends* that, where *feasible*, during the entire Physical Examination the evaluatee and evaluator should be accompanied by a **trained chaperone**. This must be prefaced by an introduction and explanation to the evaluatee of the reasons for chaperoning pertaining to both the evaluatee and evaluator. It is also recommended that upon completion of the examination, the chaperone should independently record relevant information about the event including duration; any notable incidents; and any expressions of concern by the evaluatee about the assessment.

The CSME considers *essential* the presence of a **parent or legal**

guardian whenever a **minor** undergoes a Clinical Assessment.

The CSME considers *essential* the presence during the entire Clinical Assessment of a responsible, **first order relative** or **current caregiver**, whenever the evaluatee suffers from substantial cognitive impairment from developmental handicap, severe head injury, degenerative neurologic disease or major psychiatric disorder.

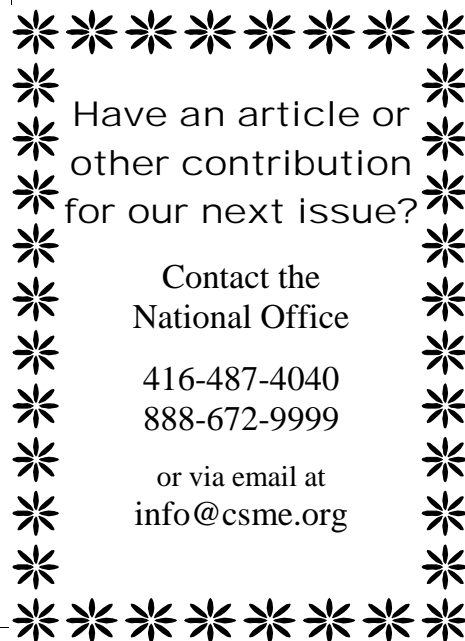
The CSME *recommends* that each evaluator develop or adopt a written **protocol** for inviting another party into the interview and/or physical examination, when the circumstances do not conform to the above, including the following two considerations:

- (1) any evaluatee who has previously suffered **physical or sexual abuse** at the hands of a physician, and who has made a formal complaint to proper authorities, should be regarded as *requiring* additional support through the presence, during the physical examination, of another party mutually acceptable to evaluator and evaluatee. If this additional party is not a professional chaperone, then a professional chaperone must also be present—for the evaluator’s benefit.
- (2) any evaluatee who remains apprehensive about the impending physical examination, despite preliminary explanation of the process and further discussion with the professional staff, should be offered the option of not proceeding at that time—without penalty. If the evaluatee elects to proceed, the evaluator should exercise discretion by using a professional chaperone. The evaluator should also consider permitting a first order relative to be present during the physical examination.

The CSME takes the position that Clinical Assessments must take place

in an atmosphere conducive to achieving all of the requisite clinical goals, free from interruption, distraction, threatening or disruptive behaviour. The presence of an additional party has the potential of significantly detracting from the quality of the assessment. In order to prevent this, and entirely at the discretion of the evaluator, any additional party may be asked to sit behind the line of sight of the evaluatee and also to not respond in any fashion (eg exclamation, sigh, gesture, expression etc) to questions posed to, or answers given by, the evaluatee unless or until the evaluator specifically invites participation.

If, for *any* reason, the evaluator finds that the continuing presence of the additional party is hindering the achievement of the assessment goals, then at the sole discretion of the evaluator the additional party may be asked to leave. If that party fails to comply, and/or the evaluatee is not prepared to continue without that party, then the clinical assessment session should be terminated immediately.



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 * Have an article or *

 * other contribution *

 * for our next issue? *

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 * Contact the *

 * National Office *

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CSME Standards Committee Report on New Clinical Guidelines

It is the position of the CSME that the only record generation activity that is permissible during the course of a clinical assessment is that which is performed by the evaluator or his/her designated assistant.

The CSME regards all forms of *non-consensual* record-making by, or for, the evaluatee as being sufficiently problematic as to be unacceptable. Non-consensual record keeping by, or for, an evaluatee can be categorized as either overt or covert in nature.

Covert recording activity can occur onsite, secreted on the person or in possessions, involving audio and/or video; or by wireless transmission (eg radio or cellphone). The act of making a surreptitious record by an evaluatee inevitably creates unnatural behaviours and distorted responses. Covert recording lacks quality control. Subsequently the record can be altered or selectively copied and widely disseminated – actions independent of ethical and moral boundary.or accountability.

Overt record keeping by, or for, the evaluatee, and by either written or electronic means, can be intrusive: it creates the potential for distraction, abbreviation of scope or duration of inquiry, discomfort, unnatural behaviour or responses. Overt record keeping thus threatens the ability of the evaluator and evaluatee to fully and efficiently achieve the goals of the assessment. Moreover, the negative effects on the quality and comprehensiveness of the assessment may not become evident until after the assessment has ended, by which time the damage is irreparable.

The CSME takes note that by virtue of legislation in place in certain jurisdictions or under circumstances such as issuance of a motion or court order, the evaluatee may have been given legal permission to create an overt electronic record during some or all portions of a medicolegal clinical assessment. Nevertheless, since this activity is by it's very nature unusual and intrusive, the serious risk of undermining the quality and comprehensiveness of the clinical assessment is not lessened merely by legal sanction or mandate. Members of the CSME are professional evaluators, entitled and obligated to dictate the circumstances that will ensure the quality of their

work. If there is significant concern about achieving the requisite goals of clinical assessment, the evaluator should advise the referring party of the nature of the concern, and of the intention to decline the referral.

In the event that the evaluator elects to proceed with a clinical assessment that is being overtly recorded by some means, by or on behalf of the evaluatee, CSME recommends as *minimum requirement* an agreement in advance (1) that a **copy** of the complete written or electronic recording will be provided to the evaluator immediately after the clinical assessment and (2) that should the evaluator, at any time during the course of a recorded assessment, develop concern that the recording activity is jeopardizing the quality of the assessment, the evaluator will either demand **cessation** of recording or else **terminate** the assessment.

The evaluator should also ensure that effective controls are in place to prevent records from being tampered with, shared, broadcast, or otherwise inappropriately managed. It is therefore preferable, in the event an evaluator agrees to the making of a written or electronic record by or for the evaluatee, in compliance with a request from the evaluatee or other parties, that the evaluator should stipulate the following protocol for the recording activity and subsequent handling of the record.

1. Written notes made by or for the evaluatee must be completely copied, immediately after the assessment, and one copy left with the evaluator.
2. Unless one-write media is used, immediately after completion, electronic records must be permanently locked to prevent alteration.
3. All electronic records must be sealed and placed in trust with referring legal counsel, to be produced for review only upon the direct instructions of a court or equivalent, in the event that the accuracy of the evaluator's own record and report of the assessment is called into question.

It is proper practice that a true and clear copy of any written notes created by the evaluator during the assessment will be made available to either side's legal representatives, in prompt response to a proper request.

Submissions, Comments & Constructive Criticisms, are all welcome.

Please send emails to drameis@mdacentre.com

Or fax to the personal attention of Dr. Ameis at 416-256-4730

Member Article Submission

DETERMINING WORK-RELATEDNESS OF MUSCULOSKELETAL COMPLAINTS

Author: Don Ranney, MD, FRCS, President, Disability Assessment Services, Waterloo, Ontario

This article is reprinted from The Disability Analyst 2000, vol. 8 #1, page 710 with the kind permission of The American Board of Disability Analysts.

Epidemiological studies have identified specific risk factors that, with sufficient exposure to them, increase the risk of development of soft tissue conditions referred to as work-related musculoskeletal disorders (WMSDs). Synonyms include cumulative trauma disorders (CTDs), repetitive strain injuries (RSIs), repetitive motion disorders (RMDs), and cervicobrachial disorders. These risk factors are: high force, sustained low level muscle activity without adequate rest periods, high frequency repetition, awkward posture, vibration, and working in a cold environment. Silverstein et al (1987) were the first to show convincingly that certain combinations of these could be statistically significant (Stock, 1991). But statistics apply to groups, and not to the individual.

When a worker falls and breaks a leg, or suffers acute low back pain while attempting to lift a heavy object, there is no problem assigning causality. But when a worker complains of soft tissue pain after doing similar work for months or years it is reasonable to ask why. Ever since Karasek and Theorell (1990) showed the influence of workplace stress on the development of medical conditions, psychosocial factors have been considered influential in the reporting of chronic work injuries. Some, e.g., Hadler (1993), attribute all WMSDs to

psychosocial influences.

If the problem has developed because of the nature of the task, there must be a history of *exposure to ergonomic risk factors*, and with it the progressive development of an effect on the precise anatomical structure(s) put under stress by such exposure. A *cumulative tissue response* occurs. The deductive reasoning involved is based on history, physical examination, and task analysis in order to determine the answer to three questions:

- 1) What is the problem, i.e., what tissue and what pathological process?
- 2) Could the work have caused it, i.e., are risk factors present?
- 3) Did it do so in this individual?

The *history* must document that the symptoms first began at work, after prolonged exposure to identified risk factors. Muscle soreness is expected to develop when anyone performs unaccustomed work, and usually resolves within a few days. Pain due to "overuse" occurs much later while doing work to which that person has long been accustomed. It may have been precipitated by an increase in the rate or duration of that activity at the time symptoms began. But symptoms *must begin at work*. The one exception is a condition that is also affected by redistribution of body fluids when lying down. I refer specifically to carpal tunnel syndrome. The stage is set for this at work with repetitive finger movement that thickens the finger flexor tendons. Awkward postures may then precipitate symptoms at work, but often it is at night that symptoms first appear. This is because body fluids that gravitate to the ankles when standing are more evenly distributed when lying down, and the carpal tunnel is correspondingly narrowed at night.

Characteristically, in the early stages symptoms such as pain cease after work, within the first two hours. With continuation of the same work these

symptoms persist progressively longer. Untreated, the condition worsens as it progresses through a series of stages. See Table 1. In severe cases pain becomes much more intense and eventually constant. This stepwise increase in intensity and duration demonstrates a cumulative effect of exposure to a harmful agent, and is key to establishing a causal relationship. Note that the amount of similar non-work activity must also be taken into account and excluded as a possible influence.

Table 1

Grading of Severity According to Symptom Duration	
Stage 1	Symptoms at work, disappear within 2 hours of leaving (mild)
Stage 2	Still present when attempting to sleep, possibly delaying sleep
Stage 3	Present also in the morning before beginning work (moderate)
Stage 4	Daily symptoms all day, but resolve on weekends
Stage 5	Continual symptoms, e.g., constant pain (severe)

From Ranney, DA: Chronic Musculoskeletal Injuries in the Workplace, W.B. Saunders, 1997.

A thorough *physical examination* following the history must be directed toward identifying the injured structure (s). The precise structure and pathological process must be determined, in this way establishing a *tissue diagnosis*, e.g., rotator cuff tendinitis or strain of extensor carpi radialis longus muscle or its tendon.

Start with palpation and record specific structures that are tender, e.g., extensor carpi radialis brevis muscle (a wrist extensor) or brachioradialis (a nearby elbow flexor). Then after testing for sensation announce that you are now going to test strength

and apply resistance to contraction of each of the tender structures. If the problem is mild, there may be no pain felt on resistance. Tendons must be severely injured to give pain on resisted activity. But if there is pain, provided the part being tested is isolated to avoid postural adjustments, pain that represents tissue pathology will be localized to the structure being stressed. If not, malingering or unconscious symptom magnification should be suspected. Table 2, modified from my text (Ranney, 1997) lists typical findings when tissue has been injured. Red flags are raised when these are absent.

Table 2
Differentiating Physical Injury from Presumed Injury

STRUCTURE	TYPICAL FINDINGS	BE SUSPICIOUS
Tendon	Tenderness is <i>only</i> along the tendon	Adjacent areas are also tender
Muscle	Pain on stress testing is felt <i>in</i> the structure stressed	Pain on stress is <i>incorrectly</i> localized
Tendon and/or Muscle	Any pain on stress is in an area of tenderness	Dissociation between stress pain and tenderness
Nerve tissue	Any sensory loss is anatomic (nerve or root pattern)	Glove-like or patchy anaesthesia
Skin	Non-tender	Tender when pinched

Complete the physical examination with any special tests that may be appropriate, e.g., Mill's maneuver for tennis elbow, Finklestein's test for de Quervain's, or the lumbrical provocation test for carpal tunnel syndrome. Details can be found in most standard texts on physical examination, or see chapters 9, 10 and 11 of my own book (Ranney, 1997). But realize that no single test is 100% reliable. All must be interpreted within the context of history and other physical signs.

Task Analysis of some kind is essential to determine causality. For example, if the job involves frequent and/or forceful wrist movement, or possibly just sustained grasping, the wrist extensors would be subjected to great stress and one would expect symptoms and signs to be focussed on them. But if instead you find tenderness of the nearby brachioradialis muscle, an elbow flexor, and there is pain on resisted elbow flexion without pain on resisted wrist extension, you can say with great confidence that *this work* did not cause *this problem*. One must then consider that psychosocial influences are playing a crucial role or that some other type of physical activity is responsible.

A task analysis can be achieved in several ways. A professional Work Site Assessment is ideal but expensive.

Many companies will have available a detailed job description that can be useful. If this is used, the worker should be asked if it is correct, as specific tasks may have changed since the job description was written. If you are able to do so, a personal visit to the plant is a very rewarding education and well worth the time spent. At the very least, you must do an "in-office" task analysis:

- Ask the worker to demonstrate, saying, "Show me what you do at work". By analyzing the movements, you will determine whether the structures that are painful could have become so through sufficient activity of this kind.
- Be sure to inquire about rate of activity. Repetition of the same movement more often than every 30 seconds is considered repetitive.
- Get some idea of the amount of force and the total time spent in a day doing any stressful work. In short, ask about all risk factors mentioned above.

For useful information on risk factors and work site assessment, consult the writings of Ergonomics Professor Dr. Richard Wells (Ranney, 1997, chapters 4 and 5).

The task analysis will allow you to decide whether the work performed is likely to have produced the precise tissue pathology that you have identified in this individual through your physical examination. Bear in mind that prior injury, as well as non-work activity may make the individual more susceptible to work injury. Consequently, past health and recreational activities will form an important part of the history.

Conclusion

Determining work relatedness is dependent upon establishing a tissue diagnosis through a synthesis of history and physical examination. Both the worker and the work must be assessed.

Five criteria are required.

1. A specific pathological change
2. An identified tissue
3. Sufficient stress at work
4. Characteristic symptoms
5. Verification by specific physical tests.

There may *also* be evidence of psychosocial influences, but pathological changes of a physical nature must be present, and the above methodology will be useful in determining if this is so.

The foregoing submission represents the viewpoint of the author and not necessarily that of the Canadian Society of Medical Evaluators or its members. Your feedback is requested. Comments should be sent to CSME National Office. Please indicate if we have your consent to use your letter in our next edition's Letters to the Editor Section.

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 Stock SR, 1991, Workplace ergonomic factors and the development of musculoskeletal disorders of the neck and upper limbs: A meta-analysis, *American Journal of Industrial Medicine*, **19**, 87-107.

Review of Recent Literature

Editor's Note: Years ago, medicolegal evaluators were at the forefront of a battle to bring evidence-based practices to colleagues and patients for uncomplicated 'whiplash' rehabilitation. Eventually, customary prescriptions of rest, collar immobilization and passive modalities became all but extinct. Apparently, the pendulum has truly swung. Whiplash is now called STI and WAD. A common, current STI 'Treatment Plan' combines many forms of intervention, utilizing multidisciplinary provider teams. A WAD I or II patient may receive massage, manipulation, aerobic exercise, weight lifting, physical modalities, pain counseling, injection therapy, TENS, and acupuncture: often several of these in the same week and not uncommonly more than one on the same day. Concurrently, the patient may be prescribed one or more drugs: Acetaminophen with codeine, oral narcotic, muscle relaxant, SSRI and NSAID. Treatment is routinely planned for the full 12 weeks of textbook healing time, but often extensions are made. However, as exemplified by the Cochrane Review (immediately below) and the samplings from review of recent literature which follow, there is very limited evidence of advantage of any one modality over any other, or even over placebo. There appears to be absolutely no evidence in support of routine use of intense, complex programs. Overlapping multiple provider disciplines in a therapeutic team, and treating near-daily for 3 or more months does not appear to offer STI patients any further benefit over simpler measures—neither more rapid nor more complete recovery.

Source: **Cochrane Reviews**
 Title: **Multidisciplinary biopsychosocial rehabilitation for neck and shoulder pain among working age adults.**

Authors: **Karjalainen K et al**

Reviewers' conclusions: *"We conclude that there appears to be little scientific evidence for the effectiveness of multidisciplinary biopsychosocial rehabilitation compared with other rehabilitation facilities on neck and shoulder pain. Multidisciplinary rehabilitation is a commonly used intervention for chronic neck and shoulder complaints, therefore we see an urgent need for high quality trials in this field".*

Source: **J Manipulative Physiol Ther 2001 Sep;24(7):457-66**
 Title: **Efficacy of spinal manipulation for chronic headache: a systematic review.**

Authors: **Bronfort G et al**

Synopsis: In order to assess the efficacy/effectiveness of spinal manipulative therapy (SMT) for chronic headache the authors carried out a systematic review of randomized clinical trials on chronic headache (tension, migraine and cervicogenic). For inclusion a study had to compare SMT with other interventions or placebo. Trials had to have at least 1 patient-rated outcome measure such as pain severity, frequency, duration, improvement, use of analgesics, disability, or quality of life.

Just nine trials involving 683 patients with chronic headache were found suitable for consideration. There appeared to be moderate evidence that SMT has an effect comparable to commonly used first-line prophylactic prescription medications such as amitriptyline for tension-type headache and migraine headache: *"SMT does not appear to improve outcomes when added to soft-tissue massage for episodic tension-type headache. There is moderate evidence that SMT is more efficacious than massage for cervicogenic headache...Much more study is needed before firm conclusions can be drawn".*

[Editor's Note: This would seem to provide an evidence-driven basis for deeming routine combinations of manipulation and massage to be unreasonable. Indeed, as the Cochrane Review below seems to show, massage may have no scientific support for back injury care, which begs the question of a role in neck strain].

Source: **Cochrane reviews**
 Title: **Massage for low back pain**
 Authors: **Furlan AD et al**

Reviewers' conclusions: *Based on the studies reviewed, there is insufficient evidence to recommend massage as a stand-alone treatment for non-specific low back pain. There is a need for high quality controlled trials to further evaluate the effects of massage for this condition.*

Source: **JAMA 1998 Nov 11;280(18):1576-9**
 Title: **Spinal manipulation in the treatment of episodic tension-type headache: a randomized controlled trial.**

Authors: **Bove G et al**

Synopsis: In this 19 wk. RCT, in a publically funded Danish chiropractic research institution, volunteers (26 men and 49 women aged 20 - 59 years who met the diagnostic criteria for episodic tension-type headache as defined by the International Headache Society) were randomized into 2 groups, 1 receiving soft tissue therapy and spinal manipulation (Manipulation group), the other receiving soft tissue therapy and placebo laser treatment (Control group). All participants received 8 treatments over 4 wks; all treatments were given by the same chiropractor. Outcome measures included daily hours of headache, pain intensity/episode, and daily analgesic use. There were no significant differences between the two groups in any of the 3 outcome measures. *"However, by week 7, each group experienced significant reductions in mean daily headache hours (Manipulation group, reduction from 2.8 to 1.5 hours; Control group, reduction from 3.4 to 1.9 hours) and mean number of analgesics per day (manipulation group, reduction from 0.66 to 0.38; control group, reduction from 0.82 to 0.59). These changes were maintained through the observation period. Headache pain intensity was unchanged for the duration of the trial. CONCLUSION: As an isolated intervention, spinal manipulation does not seem to have a*

mean number of analgesics per day (Manipulation group, reduction from 0.66 to 0.38; Control group, reduction from 0.82 to 0.59). These changes were maintained through the observation period. Headache pain intensity was unchanged for the duration of the trial. **CONCLUSION:** *As an isolated intervention, spinal manipulation does not seem to have a positive effect on episodic tension-type headache*".

Editor's Comment: Another striking aspect of this study is the Control group improvement—Hawthorne effect? Placebo effect?

Source: **Spine 1996 Aug 1;21(15):1746-59; discussion 1759-60**
Title: **Manipulation and mobilization of the cervical spine. A systematic review of the literature.**

Authors: **Hurwitz EL et al**

Synopsis: The authors noted that although recent research has demonstrated the efficacy of spinal manipulation for some patients with low back pain, little is known about its efficacy for neck pain and headache. They carried out an analysis of the literature from 1966 on, looking for evidence for efficacy and complications of cervical spine manipulation and mobilization for the treatment of neck pain and headache. **RESULTS:** *"Two of three randomized controlled trials showed a short-term benefit for cervical mobilization for acute neck pain"*. Comparing spinal manipulation with other therapies for patients with subacute or chronic neck pain showed an improvement on a 100-mm visual analogue scale of pain at 3 weeks of 12.6 mm for manipulation compared with muscle relaxants or usual medical care. *"The highest quality randomized controlled trial demonstrated that spinal manipulation provided short-term relief for patients with tension-type headache."*

Source: **J Manipulative Physiol Ther 2000 Feb;23(2):91-5**
Title: **A randomized controlled trial of chiropractic spinal manipulative therapy for migraine.**

Authors: **Tuchin PJ et al**

Synopsis: In this RCT of chiropractic spinal manipulative therapy (SMT) in the treatment of migraine, there was a comparison of outcomes to the initial baseline factors at the end of 6 months for both an SMT group and a control group. The SMT group received two months of chiropractic SMT at 'vertebral fixation' levels (practitioner determined, maximum of 16 treatments). Outcome measures included standard headache diaries during the entire trial noting frequency, intensity (visual analogue score), duration, disability, associated symptoms, and medication use for each migraine episode. **RESULTS:** The average response of the treatment group showed statistically significant improvement in migraine frequency, duration, disability, and medication use when compared with the control group. Approximately 22% of participants reported more than a 90% reduction of migraines as a consequence of the 2 months of SMT, while 50% more participants reported significant improvement in the morbidity of each episode. **CONCLUSION:** *"The results of this study support previous results showing that some people report significant improvement in migraines after chiropractic SMT"*.

[Editor's Note: Given apparent benefit over control, what about comparative efficacy. What would have been the outcome in symptoms, time expended by the patient, and public health cost, from one or two sessions of expert review of the drugs in use by the control group? Were

migraine-specific drugs in proper use? Perhaps of more relevance to our theme of STI care is the comparatively modest intervention time in this RCT protocol—just 16 treatments over 8 weeks. Most Treatment Plans call for funding for much longer programs—how long is reasonable?.

Source: **Pain 2000 May;86(1-2):119-32**

Title: **Teasing apart quality and validity in systematic re-views: an example from acupuncture trials in chronic neck and back pain.**

Authors: **Smith LA et al**

Synopsis: A systematic review was made to assess the analgesic efficacy and the adverse effects of acupuncture compared with placebo for back and neck pain. *"Thirteen RCTs met the inclusion criteria. Five trials concluded that acupuncture was effective, and eight concluded that it was not effective for relieving back or neck pain. There was no obvious difference between the findings of trials using traditional and non-traditional points. Authors' conclusions did not always agree with their data. We drew our own conclusions (positive/negative) based on the data presented in the reports. Re-analysis using our conclusions showed...higher validity scores associated with negative findings...With acupuncture for chronic back and neck pain, we found that the most valid trials tended to be negative. There is no convincing evidence for the analgesic efficacy of acupuncture for back or neck pain."*

[Editor's comments: This review, along with the related Cochrane review presented below, suggests that acupuncture as either a stand-alone or adjunctive modality may be neither necessary nor reasonable for back or neck pain].

Source: **Cochrane Reviews**

Title: **Acupuncture for low back pain**

Authors: **Tulder MW van et al**

Reviewers' conclusions: *"The evidence summarised in this systematic review does not indicate that acupuncture is effective for the treatment of back pain"*.

Source: **Cochrane Reviews**

Title: **Conservative treatment for whiplash**

Authors: **Verhagen AP et al**

Reviewers' conclusions: *"It appears that "Rest makes rusty." In other words, rest and immobilization using collars are not recommended for the treatment of whiplash, while active interventions, such as advice to 'maintain usual activities' might be effective in whiplash-patients. Nevertheless, caution is needed when attempting to draw conclusions regarding the efficacy of conservative treatments in whiplash-patients, because of the paucity of high-quality studies. No conclusions can be drawn about the most effective therapy for chronic whiplash-patients because only one low quality trial was identified"*.

Source: **Cochrane Reviews**

Title: **Physical medicine modalities for mechanical neck disorders**

Authors: **Gross AR et al**

Reviewers' conclusions: *There is little information available from trials to support the use of physical medicine modalities for mechanical neck pain. There is some support for the use of electromagnetic therapy and against the use of laser therapy with respect to pain reduction.*