A matter of statistical interest in the article EM9518 reprinted below is the small proportion (62 out of 10,382 or about 0.6%) of journal-published investigations of the efficacy of whiplash treatments that were deemed to meet acceptable scientific standards. This emphasizes the care and discipline needed from investigators for the criteria for proper data-based investigating to be met to an acceptable degree (and so yield Answers whose limitations are not too severe).

EM9518: The Globe and Mail, May 6, 1995, page D8

SPINE

The backlash on whiplash

Medicine has many elaborate treatments for neck pain caused by getting rear-ended in a car accident. Many of them, says a new study, make matters worse.

BY ANDRÉ PICARD
The Globe and Mail, Montreal

THE TV sitcoms were right after all: Most whiplash cases aren't all that serious and wearing a soft collar to restrict neck movement is more useful as a courtroom prop than as effective therapy.

According to a new study sponsored by Quebec's automobile-insurance industry, almost 90 per cent of whiplash cases will heal themselves in short order. In fact, long-term treatment is more likely to exacerbate the initial injury.

"Whiplash is a problem that is relatively short-lived and tends to be self-healing, so the most important thing is to get back to your normal activities even if you have a stiff neck", says Dr. Walter Spitzer, chairman of the department of epidemiology and biostatistics at Montreal's McGill University.

He was commissioned by the *Société d'assurance automobile du Québec* in 1989 to study whiplash – including its clinical, public health, social and financial repercussions. The $3-million project, called the Quebec Task Force on Whiplash-Associated Disorders, enlisted scientists in 25 countries and took four years to complete.

The research, published in the current issue of the medical journal *Spine*, is not only a radical view of an injury that affects tens of thousands of Canadians a year, but an indictment of the scientific literature that promotes unproved therapies. "Many peo- ple are victims of whiplash in the short term, but they are victims of the profession's neglect in the long term", Dr. Spitzer says.

Whiplash occurs when the impact of an accident thrusts the victim's head backward, then jerks it forward again. It causes a stiff neck and spinal pain for the victim – and whopping costs for the state.

Provincial no-fault insurance plans paid out more than $1-billion to whiplash claimants last year – more than 45,000 in British Columbia and 5,000 in Quebec. (Quebec does not pay for pain and suffering, which eliminates virtually all claims in which the accident victim did not miss work.)

The task force says our understanding of what happens to the cervical spine during low-velocity, rear-end collisions is limited despite a wealth of experimental studies. It appears that the soft tissues of the neck and upper spine are torn by the jerking motion, causing inflammation and pain. The best prevention method is a combination of a good head rest and proper use of a seatbelt, though the researchers note many head rests are poorly designed. (If the head rest is made of foam and the seatback has springs, for example, the torso will rebound earlier and faster than the head, amplifying the whiplash effect.)

Despite the number of cases (more than 100,000 a year in Canada) little is known about the benefits of treatments, of which there are many. The task force systematically dismisses virtually every treatment for whiplash (even diagnostic X-rays are often unnecessary, since whiplash is a soft-tissue injury). The researchers say there is anecdotal evidence supporting such short-term conservative treatments as anti-inflammatory drugs and physiotherapy, but they add that most physicians are ill-equipped to deal with the syndrome and their clumsy efforts do more harm than good.

Of the 10,382 articles on whiplash published in the scientific journals between January, 1980 and July, 1994, the task force found only 62 that meet what they consider acceptable scientific standards.

"At the risk of sounding cynical, the story of whiplash is the story of medicine", Dr. Spitzer says. "When there is a high incidence rate in the population and little research, clinicians follow tradition, no matter how unproved."

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Dr. Nikolai Bogduk, a pain expert at the University of Newscastle in Australia, says that revelation "scores a victory for spine science. It will serve as one milestone applying clinical epidemiology to clinical practice – the rules that distinguish truth from fashion."

Dr. Spitzer says old habits die hard. He hopes physicians will recognize that often the best treatment is the one diametrically opposed to current practice.

The most common treatment for whiplash-associated disorders (WAD) is rest and use of a soft cervical collar. The research team found that for minor injuries, wearing the collar for more than 72 hours actually increases scar tissue and affects mobility, while for more serious injuries it fails to immobilize the spine.

"Prolonged use of soft collars and inactivity probably prolongs disability in WAD", says the report. "Early return to usual activity for WAD patients should be vigorously encouraged."

Moderate exercise, instead of immobilization, should be part of a recovery program.

The task force also lists a whole series of whiplash treatments that are unproved, including traction, electrical nerve stimulation, electromagnetic treatment (including magnetic necklaces), ultrasound, ice, heat massage, acupuncture, laser treatment and nerve-blocking surgery. The researchers are particularly critical of drug therapies, including epidurals, steroid and sterile-water injections.

Dr. Geneviève Sadak, a physiotherapist who operates the Sports Rehabilitation Institute in North York, Ont., says the seriousness of whiplash shouldn't be underestimated: "It's virtually impossible not to have tissue damage in a traffic accident where there is substantial impact."

While she defends many of the treatment methods employed, she agrees with many of the concerns of the Quebec study. "It's certainly true that there is a stigma attached to whiplash", she says. "A lot of doctors and patients think that it's a long-term injury."

(*continued overleaf*)

"And I definitely agree that the worst thing you can do is have someone who is suffering whiplash sit around," she says. People have to be treated quickly and in an active way, not in a passive way."

Dr. Sadak says she is well aware that much of the research on whiplash is subjective and anecdotal, and "this should draw attention to the need for good clinical research."

The task force also stresses the need for research into various treatments as well as into the extent of the problem. It followed 3,014 Quebec whiplash claimants from 1987 to 1993, and discovered that 12 per cent of them suffered chronic injury, while only 2 per cent had symptoms after one year. The chronic sufferers, however, accounted for almost half the costs incurred by the provincial insurance plan, an indication that treatment is self-perpetuating and not particularly effective.

Dr. France Hétu, president of the Quebec Order of Physiotherapists, says her profession often gets a bad rap because physiotherapists "often don't get patients until it's too late, when their injuries have become chronic because of late and lousy treatment."

She says the task-force research reinforces the fact that "early, quality treatment is a much better investment than paying people to sit at home in pain."

Donald Gilbert, manager of rehabilitation and medical treatment, research and development at the Insurance Corp. of British Columbia, says the study is important. "It will make treaters think twice," he says. "Right now, people are getting drawn into a cycle of therapy that often makes them worse. When you see people in chronic pain, the pattern is there: It starts with a minor accident and degenerates."

While the ICBC has begun to take a harder line on whiplash cases, particularly resulting from fender-benders (the approach is nicknamed "no crash, no cash"), both Mr. Gilbert and the task force say it is wrong to assume that most people who suffer whiplash are faking. The pain is real, but it rarely indicates long-term harm.

"People – patients, doctors, insurers – are confused, and you can't blame them because of all the mixed messages," Dr. Spitzer says. "There has to be a distinction made between hurt and harm. Whiplash is painful but, in all but a small number of cases, the healing is quick and natural."