Whiplash associated disorders: Redefining whiplash and its management" by the Quebec Task Force. A critical evaluation

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These authors evaluated the two publications of the Quebec Task Force on Whiplash-Associated Disorders (they are summarized in Spine Suppl., S1-73, April 15, 1995) for methodologic errors and bias; and to determine whether the conclusions and recommendations of the Task Force on Whiplash-Associated Disorders regarding the natural history and epidemiology of whiplash injuries are valid.

Specifically these authors targeted four Quebec Task Force conclusions regarding whiplash injuries:
1. They result in "temporary discomfort."
2. They are "usually self-limiting".
3. They have a "favorable prognosis."
4. The "pain they cause is not harmful."

They found: “Five distinct and significant categories of methodologic error were found. They were: selection bias, information bias, confusing and unconventional use of terminology, unsupported conclusions and recommendations, and inappropriate generalizations from the Quebec Cohort Study.”

“The validity of the conclusions and recommendations of the Quebec Task Force regarding the natural course and epidemiology of whiplash injuries is questionable. This lack of validity stems from the presence of bias, the use of unconventional terminology, and conclusions that are not concurrent with the literature the Task Force accepted for review.”

The authors note that the Quebec Task Force reviewed 10,382 articles and deemed only 62 to be acceptable, yielding an acceptance rate of 0.6% and a rejection rate of 99.4%. The authors point out other problems with the methodology of literature collection, including the use of studies which Task Force members considered to be “important” which “may have undermined seriously the accuracy of the literature review.”

The Quebec Task Force also included a cohort study of whiplash injured patients from 1987. The authors point out several flaws in the evaluation of these patients, including:
1. Of the original 4766 subjects, 1743 (36.6%) were excluded because there was no police report. A police report is required if there is immediate occupant injury or if there is property damage greater than 500 Canadian dollars. Consequently:
A. Delayed symptom patients were not represented in the study. The authors cite 5 studies which report delay of symptoms following whiplash injury, including one that was accepted by the Task Force for its prognosis section.

B. Individuals who were injured in collisions in which there was no or little vehicle damage were also not represented in the study. The authors cite 3 studies that indicate that a number of vehicles can withstand significant impact and yet remain subthreshold to vehicle damage. They also cite 2 studies that document patient injury at subthreshold vehicle damage collisions.

2. The selection criteria for whiplash injury was ICD-9 diagnostic code 847.0. Injured individuals whose doctor used a different code were not represented in this study. "Accordingly, some of the most seriously injured individuals probably were excluded from the study by this selection criteria, further undermining the interpretability and external validity of the study."

3. Of the cohort patients:
   22.1% recovered within one week of the collision;
   50% recovered within one month of the collision;
   64% recovered within 60 days of the collision;
   87% recovered within 6 months of the collision;
   97% recovered within 1 year of the collision.

However, the authors note that “recovery was defined as the end of disability and compensation,” i.e. the ability to return to work.

The Quebec Task Force indicates that whiplash injury has a “favorable prognosis.” The authors note that “A ‘favorable prognosis’ usually is forecast in conditions that are known to spontaneously resolve without any residual symptoms or disability. Relying only on the literature cited by the Quebec Task Force, whiplash is a disorder that leaves 27% to 66% of the injured population symptomatic at 6 months to 2 years after the injury. They cited no studies in their text that would lend support to this statement about favorable prognosis."

The Quebec Task Force indicates that whiplash injury pain is “not harmful and usually short lived.” The authors note:

1. The Task Force cohort study did not study the nature or severity of pain experienced by the subjects.

2. None of the prognosis studies accepted for inclusion support the statement that whiplash pain is not harmful or that it is short-lived. To the contrary, whiplash pain is apparently long-lived in a substantial proportion of cases.

The Quebec Task Force indicates that whiplash injury is usually “self-limited, involving temporary discomfort, and rarely resulting in permanent harm.” The authors note:

1. The Quebec Task Force's own cited studies do not support this statement. In addition, the authors did a literature search and found 27 additional studies that contradict the above Task Force's conclusions.
“The results of this literature search clearly contradict the Task Force’s conclusions regarding the permanency of whiplash injuries.”

“It is our contention that some of the most critical conclusions and recommendations, as well as the methodology used by the Task Force in reaching those conclusions, are flawed to the point that the validity of the document must be questioned.”

[This is a great article for anyone who has had the Quebec Task Force on Whiplash Associated Disorders used against them.]