



# Australian Association of Musculoskeletal Medicine

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## **Prognostic value of the Quebec Classification of Whiplash-Associated Disorders.**

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**STUDY DESIGN:** Retrospective cohort.

**OBJECTIVES:** 1) Evaluate the utility of the Quebec Classification of Whiplash-Associated Disorders as an initial assessment tool; 2) assess its ability to predict persistence of symptoms at 6, 12, 18, and 24 months postcollision; 3) examine one potential modification to the Classification.

**SUMMARY OF BACKGROUND DATA:** In 1995, a task force from Quebec, Canada, developed the Quebec Classification of Whiplash-Associated Disorders to assist health care workers in making therapeutic decisions. The Classification was applied to an inception cohort of patients presenting for emergency medical care following their involvement in a rear-end motor vehicle collision. **METHODS:** All patients (n = 446) presenting to the only two emergency departments serving Kingston, Ontario, between October 1, 1995 and March 31, 1998 were considered for inclusion in the study. Eligible patients (n = 380) were categorized according to the Classification based on signs and symptoms documented in their emergency medical chart. Attempts were made to interview all patients shortly following and again 6 months after their collision. Patients were contacted at 12, 18, and 24 months postinjury only if sufficient time had elapsed between recruitment into and cessation of the study. Data were gathered regarding symptoms, treatments received, effects on usual activities, crash circumstances, and personal factors. Associations between initial Classification grade and the frequency/intensity of follow-up symptoms were quantified via multivariable analyses.

**RESULTS:** The Classification was prognostic in that risk for Whiplash-Associated Disorders at 6, 12, 18, and 24 months increased with increasing grade. Analyses supported modification of the Classification to distinguish between Grade II cases of Whiplash-Associated Disorders with normal or limited range of motion. The greatest risk for long-term symptoms was seen among the group of patients with both point tenderness and limited range of motion.

**CONCLUSION:** The analyses of this study support the use of the Quebec Classification of Whiplash-Associated Disorders as a prognostic tool for emergency department settings, and the authors propose a modification of the Classification using a subdivision of the Grade II category.

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