



ADHD AND DRIVING

Key Points For Physicians To Review With Adolescents and Adults Who Have ADHD

Risk Data:

- a) Clinical studies indicate that young drivers with untreated or sub-optimally treated ADHD have between *two to four times as many motor vehicle collisions (MVC)* and moving violations than a comparable non-ADHD population²⁰⁶
- b) These driving problems are seen *independent of comorbidity*. The problem profile commonly includes driving anger or road rage
- c) The presence of ADHD and *comorbid substance use disorders magnifies driving risk*
- d) *Neurodevelopmental immaturities in executive function* (resulting in problems with attention, impulse control and emotional regulation) combined with a lack of driving experience can lead to problem driving styles in young people in general
- e) Based on simulator studies, stimulant medication may reduce cognitive difficulties related to ADHD problem driving. However, there is limited real-time, on-the-road data demonstrating the benefit of stimulants. Adherence with stimulant medication is particularly poor in the evening, the time of maximum driving risk for young drivers.

Protective Factors:

- a) Restrictions on cell phone use, night time and weekend driving and on use of a manual transmission may all have an impact on improving driving performance. Psychosocial and legislative measures may prove to be a more effective preventative public health measure in the long run.
- b) Many patients with ADHD who drive are not at any significant risk of driving problems, particularly when informed of the risks and provided with good clinical care.

Evaluation of Driving Risk and Documentation:

- a) Discussion with young drivers and their families should include information on functional impairment and driving risks. Problems with speeding, following too close, road rage, inattention and distractibility when driving should be reviewed.
- b) When developing a therapeutic alliance with a family, it may be useful to encourage contracts between young drivers and their families where adherence with medications and other issues such as good school performance are exchanged for access to a motor vehicle.
- c) Documentation of discussions regarding driving safety, along with the use of an assessment of driving style and behaviour, would demonstrate that the clinician is exercising due diligence for their ADHD patients around driving safety issues. The current CMA Guidelines²⁰⁷ remind physicians that if ADHD drivers have a demonstrated problem with driving and are non-compliant with treatment, the doctor has a duty to report his or her concerns to the Provincial Ministries of Transportation. Reporting in Alberta, Quebec and Nova Scotia is discretionary.

The Jerome Driving Questionnaire (JDQ)

Why use it? Recent literature speaks to an increased risk of motor vehicle collisions and moving violations in young drivers with ADHD¹. The 2006 CMA guidelines “Determining Medical Fitness to Drive” recommend that Canadian physicians be aware that ADHD is a reportable condition if patients have demonstrated problem driving. Physicians need to consider it their duty to warn high risk drivers of the dangers of driving without the benefit of appropriate medical treatment which includes the use of long-acting stimulants, providing improved attention control and reduced impulsivity while driving². The JDQ printed in the Guidelines (which can also be downloaded from the CADDRA website or completed online at **www.adhddriving.com**) provides clinicians with a simple tool that assists them in deciding if their patient is at increased risk of problem driving. It also provides documentation in the medical record that the clinician has assessed this important functional skill in their patients.

How to use it The JDQ is a self-report instrument in two parts. **Part A** provides a lifetime driving history of driving exposure, moving violations and accidents. **Part B** provides a subjective account of the driver's driving style. It takes approximately five minutes to complete. Self and collateral observations can be collected and compared. Psychometric data have been reported²⁰⁸.

The JDQ will provide the physician, the patient and their family a view of the patient's driving record and a measure of strategic driving style. This instrument is meant to *augment* clinical evaluation, not to substitute or replace the physician's judgement about patient driving safety. It can help a health professional initiate discussion about driving safety with the patient and their family. The instrument provides the physician with a measure of the effects of medication and other behavioural interventions. Serial measures for each patient provide a visual analog record of change over time.

The **www.adhddriving.com** website allows JDQ data to be stored and displayed serially and downloaded for later analysis. The resource section contains educational videos that are helpful for patients and their families regarding the risk of untreated ADHD and driving. Review articles on driving risk and psychometric scale information will be updated periodically.

An expanded version of this appendix with references to the current evidence-based recommendations is available on the CADDRA website.