



Psychiatric Disorders and Commercial Motor Vehicle Driver Safety

Opinions of the Psychiatric Medical Expert Panel

Presented by:

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The Medical Expert Panel

- ▶ Psychiatric Medical Expert Panelists were:
 - Jeffrey Metzner, MD
 - Steven Dubovsky, MD
 - Garson Caruso, MD
- ▶ Meeting date: March 18th, 2009



Purpose

- ▶ Review existing standards and guidelines for medical examiners pertaining to the certification and recertification of individuals with a known psychiatric disorder as physically qualified to drive a CMV for the purposes of interstate commerce.
- ▶ Discuss available evidence contained in the Evidence Report and other sources regarding psychiatric disorders and CMV driver safety.
- ▶ Obtain expert opinion on changes to the existing FMCSA guidelines as deemed necessary following the critical assessment of the available evidence.



Opinion 1: Psychiatric Disorders and CMV Driver Certification

- ▶ It is the opinion of the MEP that all individuals with a history of the following psychiatric disorders undergo additional medical and psychiatric evaluation to further assess functional ability before being considered qualified to drive a CMV:
 - Psychotic Disorders
 - Bipolar Disorders
 - Major Depressive Disorder with a history of psychosis, suicidal ideation, homicidal ideation or a suicide attempt
 - Obsessive Compulsive Disorder
 - Antisocial Personality Disorder



Opinion 1: Justification

- ▶ The aforementioned psychiatric disorders all have the potential to impact driver safety due to their associated symptomatology
 - Psychotic Disorders: cognitive impairment, slowed reaction times, distraction, distorted thinking
 - Bipolar Disorders: impulsivity, poor judgment
 - Major Depressive Disorder: impaired cognitive function, suicidal ideation, suicide attempts, homicidal thoughts
 - Obsessive Compulsive Disorder: impaired concentration and motor/functional skills
 - Antisocial Personality Disorder: aggression, egocentricity, impulsiveness, resentment of authority, disregard of rules, intolerance of frustration, substance misuse, irresponsibility

Opinion 1: Justification

	Aggression	Hostility	Impulsivity	Attitude toward traffic law violations	Psychological symptoms*	Behaviors	
						Risky Driving	Violations of traffic laws
Crash							
Risky Driving		NA				—	
Violations of traffic laws		NA	NA	NA	NA		—
Aggression	—	NA	NA	NA			



Opinion 1: Psychiatric Disorders and CMV Driver Certification

- ▶ Such individuals must demonstrate that they are likely to be able to perform their normal duties by undergoing a thorough evaluation of physical and mental function by a qualified psychiatrist.



Opinion 1: Psychiatric Disorders and CMV Driver Certification

- ▶ It is the opinion of the MEP that the two question version of the Patient Health Questionnaire (PHQ) be added to the medical examination questionnaire to screen for depression.
 - If the PHQ-2 is positive for a possible significant depressive disorder, the medical examiner should then refer the patient to a psychiatrist to conduct an interview for major depression, including suicidal ideation and/or attempt.



Opinion 2: Medications for Psychiatric Disorders and CMV Driver Certification

- ▶ The MEP believes that all individuals currently taking **benzodiazepines** or similar drugs which act on benzodiazepine receptors be immediately prohibited from driving a CMV.
 - Individuals who take benzodiazepines for any length of time should not be allowed to drive until the drug has been cleared from their system (i.e., within seven half-lives of the drug and active metabolites).
 - Chronic users of benzodiazepines (i.e., regular use for more than a month) should also wait an additional week after the drug has cleared from their system before resuming driving to ensure that the drug has been completely eliminated.
 - FMCSA should provide information regarding the half-life and seven half-lives of benzodiazepines and active metabolites to medical examiners for use at the time of examination.



Opinion 2: Justification

- ▶ Benzodiazepines properties include anxiolytic, sedative, hypnotic, anticonvulsant, muscle relaxant, and amnesic. These properties can have significant effects on the central nervous system with the potential to impair driving ability.
- ▶ Prior research has shown potential associations between benzodiazepines and impaired driving ability.
- ▶ Evidence report found the crash odds ratio associated with benzodiazepines is between 1.28–2.20, $p < 0.0001$.



Opinion 2: Medications for Psychiatric Disorders and CMV Driver Certification

- ▶ The MEP is of the opinion that all individuals currently taking **lithium** be excluded from driving a CMV at night.



Opinion 2: Justification

- ▶ Lithium can impair night vision and cognition, which can negatively impact a driver's ability to drive safely.



Opinion 2: Medications for Psychiatric Disorders and CMV Driver Certification

- ▶ The MEP is of the opinion that all individuals currently taking **antipsychotics** undergo additional evaluation before being allowed to operate a CMV.
 - The medical examiner should obtain from a referral specialist a neuropsychological battery for individuals currently taking antipsychotic medications to screen for psychomotor impairments.
 - If the neuropsychological screening tests suggest impairment, then a road test must be administered.
 - Individuals starting a new antipsychotic medication must be evaluated within one month.



Opinion 2: Justification

- ▶ Prior research has shown potential associations between various antipsychotic medications and impaired driving ability.
 - For example, several studies have found an association between antipsychotics and impaired psychomotor function or simulated driving performance in patients with schizophrenia.

(Brunnauer et al., 2004; Grabe et al., 1999; Soyka, Kagerer, et al., 2005; Soyka, Winter, et al., 2005; Wylie, Thompson, & Wildgust, 1993)



Opinion 2: Medications for Psychiatric Disorders and CMV Driver Certification

- ▶ The MEP is of the opinion that all individuals currently taking antidepressants undergo additional evaluation before being allowed to operate a CMV.
 - The medical examiner should use clinical judgment to determine if the patient is too sedated to drive. This should include consideration of:
 - 1) acute effects of the specific antidepressant(s);
 - 2) the additive effects of other medications the examinee is currently taking; and
 - 3) the additive and cumulative effects of job demands such as long hours of driving, often over extended periods of many days.



Opinion 2: Medications for Psychiatric Disorders and CMV Driver Certification

- ▶ For individuals currently taking SSRIs additional evaluations should include assessments of psychomotor function
 - The medical examiner should assess balance and coordination with heel-to-toe walking, rapid alternating movement, and measures of perseveration.
 - If impairment is suggested by clinical examination, the medical examiner must obtain a neuropsychological battery of tests from a referral specialist to further test for psychomotor impairment.



Opinion 2: Justification

- ▶ Prior research has shown an association between certain antidepressants (usually TCAs) and impaired driving performance
- ▶ Antidepressants can affect the central nervous system and impair driving ability
 - Sedation
 - Psychomotor function (SSRIs)



Opinion 2: Medications for Psychiatric Disorders and CMV Driver Certification

- ▶ The MEP is of the opinion that all individuals currently taking anticonvulsants undergo additional evaluation before being allowed to operate a CMV.
 - The medical examiner should use clinical judgment to determine if the patient is too sedated to drive. This should include consideration of:
 - 1) acute effects of the specific anticonvulsant(s);
 - 2) the additive effects of other medications the examinee is currently taking; and
 - 3) the additive and cumulative effects of job demands such as long hours of driving, often over extended periods of many days.



Opinion 2: Medications for Psychiatric Disorders and CMV Driver Certification

- ▶ The medical examiner should assess balance and coordination as noted above.
- ▶ If impairment is found on clinical examination, a neuropsychological battery of tests should be obtained from a referral specialist to further test for psychomotor impairment.



Opinion 2: Justification

- ▶ Anticonvulsants have effects on the central nervous system with the potential to impair driving ability.
 - Sedation
 - Psychomotor function



Opinion 3: National Database of CMV Driver Medical History and Medication Use

- ▶ It is the opinion of the MEP that FMCSA create a national database containing the medical histories and medication use of CMV drivers to facilitate future research on possible risk factors for CMV crashes.



Opinion 3: Justification

- ▶ Given the lack of data regarding medical history, medication use, and crash risk, a national database is needed containing the medical histories and medication use of CMV drivers to facilitate future research on possible risk factors for CMV crashes.



Opinion 4: Differentiation of Acute and Chronic Psychiatric Disorders

- ▶ The MEP believes that FMCSA should define acute psychiatric disorders as those that have occurred for less than six months and chronic as those which have lasted more than six months.
 - Remission is defined as having no or minimal symptoms and no longer meeting the diagnostic criteria for the disorder. Determining whether or not an individual is in remission, however, is often a difficult judgment call as it involves assessment of functioning as well as symptoms.
 - Anyone who has had a history of a psychiatric disorder of concern, as previously defined, within the past 3 years or a history of a recurrent disorder of concern should be re-evaluated intermittently by a qualified psychologist or psychiatrist upon referral from the medical examiner.



Opinion 4: Justification

- ▶ Individuals with a history of a psychiatric disorder of concern within the past 3 years may be asymptomatic at the time of the medical evaluation but at risk for recurrence.
- ▶ Mental health assessment by a qualified psychologist or psychiatrist should assist the medical examiner in assessing the likelihood of a recurrence and/or need for treatment