



FMCSA regulates: drivers, vehicles, and motor carriers.

Regulation is needed to protect public safety, because:

- There is a greater risk of injury and fatalities to individuals in smaller vehicles.
- There is a risk to environment and persons when crashes involve hazardous materials.
- Some commercial vehicles carry many members of the public.
- The economic cost of these crashes is exceedingly high.

About the CMV Driver

To provide a comprehensive physical and meet the guidelines for approving a Commercial Motor Vehicle driver as fit-for-duty, it is important to understand the CMV role.

Factors that Contribute to Job-related Stress

- Route, scheduling, and traffic environment stresses.
- Road, traffic, weather, and night time driving.
- Vehicle size, noise, vibration, and sleeper environment.
- Types of cargo (e.g., hazardous or passenger).

Driver Responsibilities

- Coupling and uncoupling trailer(s) from the tractor.
- Loading and unloading trailer(s).
- Inspecting the operating condition of tractor and/or trailer(s) before, during and after delivery of cargo.
- Lifting, installing, and removing heavy tire chains.
- Lifting heavy tarpaulins to cover open top trailers.

Driver Population

- As in the general population; work force and age-related medical conditions.
- Health risks associated with aging and obesity including:
 - High risk for chronic disease.
 - Increased risk for fixed deficits.
 - Increased risk for gradual or sudden incapacitation.
 - Increased likelihood of co-morbidity.

The Medical Examiner's role in evaluating the CMV driver's fitness-for-duty is extremely important.

Safety

Consideration should be considered when making the certification determination:

- Is the severity of physical condition disqualifying because:
 - The symptoms, even if medically benign, interfere with the ability to drive?
 - The onset of symptoms may be so fast that the driver may be unable to stop the vehicle safely before becoming incapacitated.
 - The onset of symptoms may be so gradual that the driver is unaware of diminished ability to operate a CMV safely.
- Is the presence of a mental or physiological condition disqualifying because it interferes with:
 - Cognitive abilities used to process environmental cues rapidly and make appropriate responses?
 - Problem solving skills used to function independently of direct supervision in a new environment or in the event of an emergency?
 - Behavioral inhibitors that suppress inappropriate, irresponsible, or possibly violent actions?
- Is the use of a medical treatment:
 - Qualifying because it controls a physical and/or mental condition allowing the driver to perform tasks more safely than without treatment?
 - Disqualifying because the effects, even if medically optimal interfere with safe driving?
 - Disqualifying because the side effects interfere with safe driving?

When providing an examination for a CMV driver, the following steps should be adhered:



Identification and history

- Verify the identity of the driver. The Medical Examiner's trained staff can obtain this information but must do so by using at least one government issued photo identification form (e.g., driver's commercial license).
- Confirm the identification form information and medical record driver information match.
- Ensure the driver has completed both sections, and signed/dated the driver's statement about health history.
- Identify, query, and note issues in a driver's medical record and/or health history as available, which may include:
 - Specifics regarding any affirmative responses in the history.

- Any illness, surgery, or injury in the last five years.
- Any other hospitalizations or surgeries.
- Any recent changes in health status.
- Whether he/she has any medical conditions or current complaints.
- Any incidents of disability / physical limitations.
- Limitations placed during prior FMCSA examinations.
- Current OTC and prescription medications and supplements, and potential side effects, which may be potentially disqualifying.
- Other conditions that could impair a driver's ability to safely function.

Negative history might be inaccurate (e.g., driver erroneously applied "last five years" time frame to all health history questions or was unaware that a same-day, minimally invasive procedure is surgery).

The Medical examiner must review and discuss:

- Any health history "yes" answers.
- Potential for medication effects or side effects that interfere with safe driving
- Symptoms of diseases to evaluate the ability to drive safely and effectively on function and relevant history rather than relying solely on history of diagnosis.
- If the effects of medication contribute to the ability to drive safely.
- If the effects or side effects of medication interfere with the ability to drive safely.
- drug interactions with another drug, food, and/or supplement.
- Synergistic effects from a combination of prescription and/or over the counter medications.
- Reactions to a new medication or one with a narrow therapeutic range.
- Reactions to a single late or missed dose of a medication.



Performing the Physical Examination

Ensure the driver is properly clothed for the physical examination.

- The minimum physical examination required for determining driver certification includes:
 - Record height and weight and note whether the driver is overweight or underweight.
 - Examine eyes and note.
 - Examine ears and note.
 - Examine mouth and throat, and note conditions that may interfere with breathing, speaking, or swallowing.
 - Examine neck and note.

- Examine heart.
 - Examine lungs, chest, and thorax, excluding breasts, and note.
 - Examine abdomen and note.
 - Examine spine and note.
 - Examine extremities and note.
 - Examine neurologic status and note.
 - Examine urine and note specific gravity, protein, blood, and glucose.
 - Examine mental status and note
- The four tests required as a part of every driver certification and recertification examination are
 - Vision
 - Hearing
 - Blood Pressure/Pulse
 - Urinalysis (dipstick)
 - Assess medically fit for duty may require additional driver testing and/or medical evaluation by primary care provider and/or specialist provider.



Additional Testing and Evaluation

Keep in mind, there is a difference between testing and evaluating to diagnose and treat the driver vs. testing and evaluating to determine the driver's medical fitness for duty and to protect public safety.

Below are a few items that would indicate the need for additional testing and/or evaluation:

- An abnormal urinalysis.
- An occurrence of cardiovascular insufficiency.
- Abnormal affect at examination.
- Recently prescribed treatment or medication.

Examples of additional tests the examiner might **perform**, would be:

- Random blood glucose.
- Pulse oximetry.

Additional test the examiner might **require** :

- Arterial blood gas analysis (ABG).
- Stress exercise tolerance test (ETT).
- Sleep study.
- Drug test.

Additional **evaluation** that might be required include:

- Report of the effectiveness of procedure, surgery, or treatment.
- Evaluation of medication effects and/or side effects.
- Results of cognitive and/or behavioral evaluation.
- Evaluation of completion and success of rehabilitation program.



Documenting

- Ensure that driver has completed both sections, signed, and dated the Medical Examination Report.
- When appropriate, request specific report details as treating provider may not be familiar with CMV driver physical qualification requirements:
- Request medical details (e.g., dates, treatment effects and/or side effects, test results, etc.) identified by regulation and/or recommendations.
- Ensure appropriate medical information release forms are provided when required.
- Include supporting documentation with Medical Examination Report.
- Fully document health history review, which includes:
 - Noting the discussions of medication effects and/or side effects that can interfere with driving.
 - Identifying when history indicates additional tests or evaluation are required to make a certification decision.
 - Explaining if health history is cause for disqualification.



Health Education Counseling

- Explain to a driver the consequences of non-compliance with a care plan for conditions that have been advised for periodic monitoring with primary healthcare provider.
- Advise a driver:
 - Regarding side effects and interactions of medications and supplements (e.g., narcotics, anticoagulants, psychotropics) including those acquired over the counter (e.g., antihistamines, cold and cough medications) that could negatively affect his or her driving.
 - That fatigue, lack of sleep, undesirable diet, emotional conditions, stress, and other illnesses can affect safe driving.
 - With contact lenses he or she should carry a pair of glasses while driving.
 - With a hearing aid he/she should possess a spare power source for the device while driving.
 - Who has had a deep vein thrombosis event of risks associated with inactivity while driving and interventions that could prevent another thrombotic event.
 - Has diabetes about blood glucose monitoring frequencies and the minimum threshold

- while driving
- With a diabetes exemption, he/she should:
 - Possess a rapidly absorbable form of glucose while driving.
 - Self-monitor blood glucose one hour before driving and at least once every four hours
 - while driving.
 - Comply with each condition of his/her exemption.
 - Plan to submit blood glucose monitoring logs for each annual recertification.
- Inform the driver of the rationale for delaying or potentially disqualifying certification, which may include:
 - The immediate post-operative period.
 - Vision disability (e.g., retinopathy, macular degeneration).
 - Cardiac even (e.g., myocardial infarction, coronary insufficiency).
 - Chronic pulmonary exacerbation (e.g., emphysema, fibrosis).
 - Uncontrolled hypertension.
 - Endocrine dysfunctions (e.g., diabetes).
 - Musculoskeletal challenges (e.g., arthritis, neuromuscular disease).
 - Neurologic event (e.g., seizures, stroke, TIA).
 - Sleep disorder (e.g., obstructive sleep apnea).
 - Mental / emotional health (e.g., depression, schizophrenia).
 - Mental health dysfunctions (e.g., depression, bipolar).



Risk Assessment

- Consider a driver's ability to:
 - Couple and uncouple trailers from a tractor.
 - Load or unload several thousand pounds of freight.
 - Install and remove tire chains.
 - Manipulate and secure tarpaulins that cover open trailer.
 - Move one's own body through space while climbing ladders; bending, stooping, and crouching; entering and exiting the cab.
 - Manipulate an oversized steering wheel.
 - Shift through several gears using a manual transmission.
 - Perform precision prehension and power grasping.
 - Use arms, feet, and legs during CMV operation.
- Review Skill Performance Evaluation (SPE) cases.
- Consider a driver's cognitive ability to:
 - Plan a travel route.
 - Inspect the operating condition of a tractor and/or trailer.
 - Monitor and adjust to a complex driving situation.
 - Maneuver through crowded areas.

- Quickly alter the course of vehicle to avoid trouble.
- Consider general health and wellness factors such as.
 - Adverse health effects associated with rotating work schedules and irregular sleep patterns.
- Long-term effects of fatigue associated with extended work hours without breaks.
- Risk factors associated with common dietary choices available to drivers.
- Stressors likely associated with extended time away from a driver's social support system.
- Short- and long-term health effects of stress from tight pickup and delivery schedules.
- Irregular work, rest, and eating patterns / dietary choices.
- Adverse road, weather, and traffic conditions.
- Exposure to temperature extremes, vibration, and noise.
- Transporting passengers or hazardous products.
- Integrate FMCSA medical advisory criteria and guidelines regarding a driver's condition into the risk assessment.
- Consider for documented conditions the rate of progression, degree of control, and likelihood of gradual or sudden incapacitation, examples include:
 - Cardiovascular.
 - Neurologic.
 - Respiratory.
 - Musculoskeletal.
- Document all of your observations in your reports.



Certification Outcomes and Intervals

- Apply certification standards to qualify or disqualify a driver.
- Disqualify a driver who:
 - Is currently taking methadone.
 - Has a current clinical diagnosis of alcoholism uses a controlled substance including a narcotic, an amphetamine, or another habit-forming drug without a prescription from the treating physician.
- Disqualify a driver when evidence shows a condition exists that will likely interfere with the safe operation of a CMV, which may include sufficient supporting opinions and information from specialists.
- Document the reason(s) for the disqualification and/or referral.
- Advise a driver of the reasons for a disqualification decision and what a driver could do to become qualified.
- Certify a driver for an appropriate interval.
- Indicate certification status, which may require:
 - Waiver/exemption, which the medical examiner identifies.

- Wearing corrective lenses.
 - Wearing a hearing aid.
 - Skill Performance Evaluation Certificate.
-
- Advise a driver certified with a limited interval to return for recertification with the appropriate documentation for his or her condition.
 - Complete a medical examination report and medical certificate/card.
 - Ensure use of currently required examination form.
 - Ensure the form includes the examiner's name, examination date, office address, and telephone number.
 - Ensure the driver signs the medical certificate/card.

When you determine that a driver has a health history or condition that does not meet physical qualification standards, you must not certify the driver. However, you should complete the examination to determine if the driver has more than one disqualifying condition. Some conditions are reversible, and the driver may take actions that will enable him/her to meet qualification requirements if treatment is successful.

STUDY AID FOR FMCSA MEDICAL EXAMINER



VISION MODULE STUDY QUESTIONS

1. Who can perform the vision portion of the interstate CMV driver physical examination?
2. To pass the interstate CMV driver vision exam, a visual acuity of _____ corrected or uncorrected is required.
3. What eye conditions must the medical examiner ask the driver about and if indicated request specialist evaluation?
4. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Mr. Steve Brown



Mr. Brown—Recertification Examination

Sex: Male | Age: 48 | Height: 72” | Weight: 180 lbs.

Health History

Yes response(s): Injury in the last five years Medication(s): None

Health History Comments

Reports hunting accident two years ago, resulting in facial trauma with a left orbital fracture. Presented “May drive” note from eye surgeon (dated three months prior to physical examination).

Vision
Uncorrected Acuity: Rt. Eye: 20/20 Lt. Eye: 20/40 Both: 20/20 Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: Inconclusive Meets standard only when wearing: corrective lenses? No Color: Can distinguish red, green, and amber colors? Yes Monocular Vision? No
Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-122/74 P-80 & Regular
Urinalysis
SP. GR.: 1.020 Protein: Neg Blood: Neg Glucose: Neg

Physical Examination Comments

Left eye muscles do not move the eye to the left. Discussed disqualification pending eye examination by specialist. Explained that the specialist will be able to obtain precise visual field measurements. Provided driver with appropriate medical release and copy of Medical Examination Report form with vision section highlighted. The rest of the physical examination was remarkable.

- In addition to inconclusive field of vision testing, what other vision concerns support the medical examiner's decision to have the driver examined by a specialist?

HEARING MODULE STUDY QUESTIONS

6. Give examples of “Yes” answers for hearing and ears on the health history that may require further examination before a medical examiner can make a CMV driver certification decision.

7. Does this driver meet hearing standards for interstate CMV driver certification?

Whisper test results | Rt. Ear: 4 Feet | Lt. Ear: 4 Feet |

8. Does this driver meet hearing standards for interstate CMV driver certification?

Audiometric test results [Hearing loss in decibels (dB) 500 Hz, 1,000 Hz, 2,000 Hz]

Rt. Ear: 30, 45, 40 | Lt. Ear: 45, 45, 35 |

9. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Mr. Reggie Chin



Mr. Chin—Recertification Examination

Sex: Male | Age: 54 | Height: 74” | Weight: 240 lbs.

Health History

Yes response(s): Loss of hearing.

Medication(s): None

Health History Comments

Reggie is a CMV driver who presents for recertification. He has a history of frequent ear infections in childhood. He had multiple tympanic membrane ruptures and infections in elementary school and into his middle-school years. He has “always” been “hard of hearing” in his left ear.

Vision
Uncorrected Acuity: Rt. Eye: 20/30 Lt. Eye: 20/30 Both: 20/30 Horizontal Field of Vision: Rt. Eye: 90° Lt. Eye: 90° Meets standard only when wearing: Corrective lenses? No Color: Can distinguish red, green, and amber colors? Yes Monocular Vision? No
Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 Feet Lt. Ear: 3 Feet Audiometric test hearing loss average: Rt. Ear: N/A, Lt. Ear: N/A
Blood Pressure/Pulse
BP-134/80, P-86 & Regular
Urinalysis
SP. GR.: 1.020 Protein: Neg Blood: Neg Glucose: Neg

Physical Examination Comments

Forced whisper test results – Right ear passed; left ear failed. The left tympanic membrane is scarred and misshapen.

Noted post-nasal drainage.

The rest of the physical examination was unremarkable.

10. In the above scenario, what would the examiner have done if the whisper test results had been: Rt. Ear: 4 Feet Lt. Ear: 3 Feet? Why?
11. What problems with the test environment exist with the forced whisper tests that do not exist with audiometric tests?
12. In the above scenario with Mr. Chin, should the medical examiner advise him to see a specialist because of possible future hearing problems?

END OF MR. CHIN'S SCENARIO QUESTIONS

CARDIOVASCULAR MODULE STUDY QUESTIONS

13. Can an interstate CMV driver who has had an acute myocardial infarction (AMI) be qualified to drive?
14. The driver provides the medical examiner with a copy of records, including a cardiologist's report indicating a diagnosis of congestive heart failure and that the driver's ejection fraction is 38%. Can the driver be certified?
15. What criteria must be met in order for the FMCSA medical examiner to qualify a driver with a known diagnosis of congestive heart failure (CHF)?
16. Using cardiovascular medical guidance, for each driver, is the driver medically qualified or medically disqualified?
 - a. Driver with percutaneous coronary intervention (PCI) nine months ago; he or she has not followed up with cardiologist and has not had exercise tolerance test (ETT) since procedure.
 - b. Coronary artery bypass graft (CABG) surgery four months ago; echo at three months showed LVEF 55%; driver was cleared by cardiologist and has no chest pain.
 - c. Driver with CHF having dyspnea at rest.
 - d. Driver has recently had increasing angina which lasted 20 minutes after tarping a load; he or she is unresponsive to nitroglycerin.
17. A driver has an abdominal aortic aneurysm. The medical examiner obtains a copy of an abdominal sonogram indicating that the aneurysm is 5.3 cm in diameter. According to current CVD recommendations, should the medical examiner certify this individual?
18. Before the examination begins, the driver gives the examiner a letter from his cardiovascular surgeon, indicating that he had surgical repair of a 9 cm abdominal aortic aneurysm four months previously, and the driver is now cleared to resume all activities. According to current CVD recommendations, can the examiner certify this driver?
19. What signs and symptoms should medical examiners look for in drivers with a diagnosis of congestive heart failure? Discuss how these symptoms affect the ability of the driver to safely operate a CMV?

20. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Ms. Christine Donovan



Ms. Donovan—Recertification Examination

Sex: Female | Age: 62 | Height: 62” | Weight: 203 lbs.

Health History

Yes response(s): None

Medication(s): None

Health History Comments

Postmenopausal.

Denies exercise or special diet.

Smokes two packs per day (for past 23 years).

Family history positive for cardiac events:

- Mother MI at age 53 years.
- Father sudden death at age 59 years.
- Positive family history for hypercholesterolemia.
- Denies chest pain, palpitations, or shortness of breath at rest or while performing driver tasks.

Vision

Uncorrected Acuity: Rt. Eye: 20/30 Lt. Eye: 20/40 Both: 20/30

Horizontal Field of Vision: Rt. Eye: 90° Lt. Eye: 90°

Meets standard only when wearing: corrective lenses? No

Color: Can distinguish red, green, and amber colors? Yes

Monocular Vision? No

Hearing

Hearing aid used for test? No

Hearing aid required to meet standard? No

Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet

Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A

Blood Pressure/Pulse
BP-138/88 P-90 & Regular
Urinalysis
SP. GR.: 1.020 Protein: Neg: Blood: Neg Glucose: Neg

Physical Examination Comments

The physical examination reveals a markedly overweight female in no distress and causing no interference with ability to drive. Advised driver to see personal care provider for diet and exercise regimen for weight loss that may lower her risk for onset of coronary heart disease (CHD).

The rest of the physical examination was unremarkable

21. What non-modifiable and modifiable risk factors did the medical examiner note in the health history of Christine Donovan? Discuss how the medical examiner comments demonstrate knowledge of FMCSA medical guidance for CVD
22. Medical examiners typically do not have a “treating provider” relationship with the drivers they examine. This medical examiner discussed weight control, smoking cessation, regular exercise, and other risk factor modifications, and counseled her to see or obtain a primary care provider for regular medical care, particularly for relevant cardiac risk factors.

Was this appropriate or should the medical examiner only have provided the physical examination? Support your answer.

END OF MS. DONOVAN'S SCENARIO

23. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Mr. Jason Feldstein



Mr. Feldstein—Recertification Examination

Sex: Male | Age: 62 | Height: 72” | Weight: 180 lbs.

Health History

Yes response(s): Heart Surgery – Coronary Artery Bypass Graft (CABG) surgery six weeks ago.

Medication(s): Aspirin daily.

Health History Comments

Presence of unstable angina led to CABG 6 weeks ago. Mr. Feldstein states that he “Feels 10 years younger since surgery!” Included in the cardiologist report dated three and one-half weeks post-CABG surgery is clearance for driving. “OK to drive.” Mr. Feldstein denies any post-surgery episodes of angina. Mr. Feldstein also tolerates daily low-dose aspirin with no side effects that interfere with driving ability.

Vision
Uncorrected Acuity: Rt. Eye: 20/50 Lt. Eye: 20/25 Both: 20/25
Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: 80°
Meets standard only when wearing: corrective lenses? Yes
Color: Can distinguish red, green, and amber colors? Yes
Monocular Vision? No
Hearing
Hearing aid used for test? No
Hearing aid required to meet standard? No
Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet
Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-112/66 P-64 & Regular

Urinalysis

SP. GR.: 1.020 | Protein: Neg: | Blood: Neg | Glucose: Neg

LVEF % is not included with medical records Mr. Feldstein brought to examination.

Physical Examination Comments

On auscultation, there is an S4 gallop heard best at the sternum. Has a median sternotomy scar consistent with recent surgery.

The rest of the physical examination was unremarkable.

24. Discuss the recommended criteria for qualifying a driver post-CABG relating to the available facts when appropriate.

- a. Qualifying examination at least three months after CABG.
- b. Examination and approval by a cardiologist before resuming CMV driving.
- c. Driver is asymptomatic.
- d. Annual medical qualification examination.
- e. After five years, yearly ETT because of accelerated graft closure.
- f. Radionuclide stress testing or echocardiographic myocardial imaging is indicated if the driver is not able to achieve a satisfactory ETT result, has a dysrhythmia, or has an abnormal resting electrocardiogram.
- g. Resting echocardiogram at the time of the first qualifying examination after CABG (a documented report of an echocardiogram performed in-hospital after CABG is equally sufficient). Disqualification occurs in the presence of left ventricular dysfunction (ejection fraction <40%).
- h. Tolerance to all cardiovascular medications with no orthostatic symptoms.

END OF MR. FELDSTEIN'S SCENARIO

25. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Mr. Benjamin Gray



Mr. Gray—Recertification Examination

Sex: Male | Age: 45 | Height: 67” | Weight: 150 lbs.

Health History

Yes response(s): Heart disease or heart attack. Medication(s): Aspirin daily.

Health History Comments

He is currently seeing a cardiologist for a single episode of chest pain that occurred two weeks ago while roofing his home. Chest pain:

- a. Lasted a half hour, gradually resolved without treatment.
- b. Located primarily in the left pectoral area, not radiating, and aggravated by movement of the left arm. “Felt like a charley horse” with mild residual soreness present for about 24 hours.
- c. Consulted with primary care provider who referred Mr. Gray to a cardiologist.

Mr. Gray provided a copy of cardiologist report:

- Primary care provider evaluated him the day after chest pain episode – started aspirin and referred to a cardiologist.
- Cardiologist reports normal EKG.
- Scheduled lab work and stress test/echocardiogram in two weeks.
- No medications prescribed and no activity restrictions.
- No recurrence of the chest pain.
- Continues to run two miles three times a week without symptoms.
- No previous history of cardiovascular disease.
- Mr. Gray is a nonsmoker, has no hyperlipidemia history.
- Father had an MI at age 69.

Vision
Uncorrected Acuity: Rt. Eye: 20/25 Lt. Eye: 20/25 Both: 20/25 Horizontal Field of Vision: Rt. Eye: 90° Lt. Eye: 90° Meets standard only when wearing: corrective lenses? No Color: Can distinguish red, green, and amber colors? Yes Monocular Vision? No
Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: N/A Lt. Ear: N/A Audiometric test hearing loss average: Rt. Ear: 30 Lt. Ear: 28.33
Blood Pressure/Pulse
BP-112/70 P-84 & Regular
Urinalysis
SP. GR.: 1.030 Protein: Neg: Blood: Neg Glucose: Neg

Physical Examination Comments

Examination is unremarkable

26. Discuss what the medical examiner determination is likely to be if the test results are normal.

END OF MR GRAY'S SCENARIO

HYPERTENSION MODULE STUDY QUESTIONS

27. Using current FMCSA guidelines, what is the maximum certification period for an interstate CMV driver with Stage 1 hypertension?
28. Using current FMCSA guidelines, what is the proper determination for an interstate CMV driver, with a diagnosis of hypertension, who presents with a confirmed blood pressure of 182/112?
29. Using current FMCSA guidelines, what is the maximum period of certification for a driver disqualified for Stage 3 hypertension, but who has, at the certification examination, a blood pressure less than 140/90?
30. A CMV driver with a diagnosis of hypertension presents with a BLOOD PRESSURE of 182/112. This is Stage ____.
31. What is the BLOOD PRESSURE range for Stage 1 hypertension?
32. What date is used to determine the one year expiration date of for a driver, with a one-time, three month certificate, who achieves a BP less than or equal to 140/90 before the 3-month certificate expires?

33. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Ms. Mary Hall



Ms. Hall—Recertification Examination

(current certificate expires at midnight on examination day)

Sex: Female | Age: 42 | Height: 67" | Weight: 150 lbs.

Health History

Yes response(s): High blood pressure

Medication(s): HCTZ (Oretic) 25 mg every day, Enalapril (Vasotec) 20 mg every day.

Health History Comments

- Smokes one and one-half packs of cigarettes per day (for past 20 years).
- Divorced, mother of four children.
- Came to exam following 10 hours of driving; has not yet slept.
- Had several cups of coffee and a couple of cigarettes within past two hours.
- Forgot to take medication before leaving from home.

Short hauls, returns home each day so she doesn't carry extra meds in truck; suggested she might want to carry one or two days' worth with her in case of unexpected overnight delays.

Treated for hypertension by her primary care physician, Dr. Strokes, for the past 10 years. Produced primary care provider's records from last physical exam, eight months ago, which included:

- Expiration date for one year certification.
- Negative exam.
- BP 120/84.
- PCP noted "tolerates medications well and experiences no side effects".

Vision
Uncorrected Acuity: Rt. Eye: 20/20 Lt. Eye: 20/20 Both: 20/20 Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: 80° Meets standard only when wearing: corrective lenses? No Color: Can distinguish red, green, and amber colors? Yes Monocular Vision? No
Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 Feet Lt. Ear: 3 Feet Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-151/94 P-92 & Regular. Confirmed elevated BP 154/94. Ms. Hall is concerned because current medical examiner's certificate expires today.
Urinalysis
SP. GR.: 1.020 Protein: Neg: Blood: Neg Glucose: Neg

Physical Examination Comments

Confirmed elevated systolic and diastolic BP. Rest of examination is unremarkable.

34. What factors could have contributed to Ms. Hall having Stage 1 hypertension at the time of examination?
35. What physical examination findings indicate that Ms. Hall is a low risk for a hypertensive event that would interfere with safe driving?

END OF MS. HALL'S SCENARIO

RESPIRATORY MODULE STUDY QUESTIONS

36. In addition to pulmonary function tests, give examples of other signs or symptoms a medical examiner uses to decide if a pulmonary/respiratory disease disqualifies a driver under FMCSA regulations.
37. What conditions must a driver with acute or chronic cor pulmonale meet to be certified to operate an interstate CMV?
38. A driver states that she has exercise- induced asthma well controlled by using an albuterol (Proventil, Ventolin) inhaler before she does any aerobic activity. Her pulmonary function (forced expiratory volume in the first second of expiration (FEV_1)) must be greater than _____ % of predicted FEV_1 to qualify.
39. A driver takes diphenhydramine (Benadryl), 25 mg, two or three times per day, to treat nasal congestion. Discuss what, if any, concerns this causes, and what a medical examiner might do in this example.
40. The examiner notices that the driver has marked that he has asthma and lists an albuterol [Proventil, Ventolin] inhaler among his medications. On questioning, the driver admits to using it several times a day, especially during the spring and fall; he admits that he has not seen his primary care physician in several years but is still getting frequent refills on his inhaler. The driver also admits that he has been hospitalized twice in the last six months for his asthma, ending up on a ventilator on the last visit.

Should the medical examiner certify the driver, if so, for how long?
41. A driver presents for examination with a history (last month) of a pneumothorax. The records provided by the driver indicate that the pneumothorax reduced the driver's forced vital capacity (FVC) to 58% of predicted forced vital capacity. Can this driver be certified? If not, when can the driver be certified?
42. A driver presents for examination with a history (three months ago) of a pneumothorax. The records provided by the driver indicate that this is the second spontaneous pneumothorax on the same side. The driver's forced vital capacity (FVC) to 68% of predicted forced vital capacity is with no surgical intervention. Can this driver be certified? If not, when can the driver be certified?

43. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Mr. Barry Johnson



Mr. Johnson—Recertification Examination

Sex: Male | Age:55 | Height: 72” | Weight: 260 lbs.

Health History

Yes response(s): None

Medication(s): None

Health History Comments

Mr. Johnson admits to a 40- year smoking history. He continues to smoke despite repeated efforts to quit; however, he has cut back to only one pack a day. He reports no loss of breath, except with exertion. He has a productive cough in the morning and a chronic lingering cough throughout the day.

Vision
Uncorrected Acuity: Rt. Eye: 20/25 Lt. Eye: 20/20 Both: 20/30 Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: 80° Meets standard only when wearing: corrective lenses? No Color: Can distinguish red, green, and amber colors? Yes Monocular Vision? No
Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: N/A Lt. Ear: N/A Audiometric test hearing loss average: Rt. Ear: 26dB Lt. Ear: 30dB

Blood Pressure/Pulse
BP-138/88 P-92 & Regular PFT results: Pulmonary function (forced expiratory volume in the first second of expiration [FEV1]) 64% of predicted, FEV1/forced vital capacity (FVC) ratio 66%
Urinalysis
SP. GR.: 1.030 Protein: Neg: Blood: Neg Glucose: Neg

Physical Examination Comments

Barrel chest appearance. Auscultation of the lungs reveals expiratory wheezes and rales over the lower lobes of both lungs, with decreased diaphragm excursion. He becomes mildly out of breath when performing muscle testing and musculoskeletal examination. No clubbing or cyanosis noted. The rest of the physical examination was unremarkable.

44. What three tests does medical guidance recommend for initial pulmonary function testing?
45. PFT results: FEV1 64% of predicted, FEV1/FVC ratio 66%. According to medical guidance, what do Mr. Johnson's PFT test results indicate doing next?
46. The medical examiner obtains the following information: Pulse oximetry O2 saturation - 90%; arterial blood gas (ABG) - PaO2 [60 mm Hg], PaCO2 [42 mm Hg]. What do Mr. Johnson's test results indicate?
47. Would the medical examiner's determination be affected by the information that Mr. Johnson had been long-haul driving in the mountains of the West for the three immediate weeks prior to having the ABG?

END OF MR. JOHNSON'S SCENARIO

48. What is the certification decision in this scenario?

Scenario 2 – Medical Examination Report Form – Mr. Donald Katz



Mr. Katz—Recertification Examination

Sex: Male | Age: 65 | Height: 70” | Weight: 175 lbs.

Health History

Yes response(s): High blood pressure, shortness of breath, lung disease, emphysema, asthma, chronic bronchitis.

Medication(s): tiotropium bromide (Spiriva) 1 cap qd (daily), using inhaler device salmeterol/fluticasone propionate (Advair) 500/50 bid (twice daily), and occasional albuterol (Proventil, Ventolin) inhaler.

Health History Comments

Trained assistive staff noted that walking to examination room caused driver to “huff and puff.” Driver states that he has been smoking for 50 years, two packs per day, but after last primary care provider physical examination has cut down to a half pack per day. At the primary care provider examination (one year ago), Mr. Katz was diagnosed with “borderline” hypertension, COPD, and cor pulmonale secondary to COPD. Mr. Katz denies any side effects from medication. States that he uses albuterol occasionally; only once or twice a day. Driver provided copy of primary care provider medical records:

Echocardiogram (two months old) showed mild right ventricular hypertrophy (RVH), mild pulmonary hypertension, but otherwise normal.

Chest x-ray (six months old) revealed findings consistent with COPD.

Pulmonary function tests (one year old) showed moderate obstruction consistent with COPD.

Vision
Corrected Acuity: Rt. Eye: 20/25 Lt. Eye: 20/20 Both: 20/20
Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: 80
Meets standard only when wearing: corrective lenses? Yes
Color: Can distinguish red green and amber colors? Yes
Monocular Vision? No

Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-138/86 P-88 & Regular
Urinalysis
SP. GR.: 1.030 Protein: Neg: Blood: Neg Glucose: Neg Pulse Oximetry: O saturation on room air was 87%.2

Physical Examination Comments

1. Mr. Katz appears older than his stated age, with a red and slightly puffy face.
2. Grade II/VI, S4.
3. Shortness of breath resulting from mild exertion during musculoskeletal examination.
4. Questionable ascites.
5. Mild pretibial edema.

The rest of the physical examination was unremarkable.

49. Give an example of something the medical examiner could have done during the examination to confirm the symptoms reported by the staff members. Discuss why the examiner wants to observe staff-reported symptoms personally?
50. As a courtesy to the treating provider, when requesting a test and/or evaluation for a CMV driver qualification, the medical examiner includes relevant FMCSA recommendations. What additional information, if any, might the medical examiner include based on this scenario?

END OF MR. KATZ'S SCENARIO

51. What is the certification decision in this scenario?

Scenario 3 – Medical Examination Report Form – Mr. Carlos Lopez



Mr. Lopez—Recertification Examination

(Two months left before current one year certificate expires)

Sex: Male | Age:50 | Height: 70" | Weight: 240 lbs.

Health History

Yes response(s): Any illness or injury in the last five years: sleep disorders; pauses in breathing while asleep; daytime sleepiness; loud snoring; regular, frequent alcohol use.

Medication(s): None, uses CPAP nightly.

Health History Comments

Mr. Lopez presents for recertification with a medical certificate that does not expire for three more months. He states he had pneumonia two years ago and was diagnosed with sleep apnea at that time. He has been using a CPAP since that time and “wakes rested.” He has not been to a personal care provider since the health problems two year ago. He drinks maybe two beers during the weekends he has off.

Vision

Corrected Acuity: Rt. Eye: 20/20 Lt. Eye: 20/20 Both: 20/20

Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: 90°

Meets standard only when wearing: corrective lenses? Yes

Color: Can distinguish red, green, and amber colors? Yes

Monocular Vision? No

Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 feet Lt. Ear: 5 feet Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-138/88 P-84 & Regular
Urinalysis
SP. GR.: 1.030 Protein: Trace Blood: Neg Glucose: Neg

Physical Examination Comments

- Obese.
- Medium-sized ventral hernia that is easily reducible.

Rest of physical examination is unremarkable

52. What options are available if Mr. Lopez returns to the same medical examiner for the recertification examination?

53. Give examples of driver education and advice that may be appropriate for Mr. Lopez.

END OF MR. LOPEZ'S SCENARIO

NEUROLOGICAL MODULE STUDY QUESTIONS

54. According to regulation, for what neurological condition is medically disqualifying for the interstate CMV driver certification?

55. According to medical guidance, episodic neurological conditions that are disqualifying include what?

56. According to medical guidance, for which of the following diagnosed neurological conditions is the driver considered medically unqualified for driving?

Febrile seizure.

Dementia (severe).

Dementia (metabolic).

Transient ischemic attacks (within one year).

Transient ischemic attacks (greater than one year ago).

57. A driver is taking levodopa/carbidopa (Sinemet). Levodopa/carbidopa may cause the driver to be disqualified because it is used for the treatment of what?

58. For transient ischemic attacks (TIA):

Describe "no functional residual."

Discuss future risk associated with TIA.

Discuss recommended criteria for interstate commercial motor vehicle (CMV) driver certification.

59. What is the best determination outcome of this examination?

Scenario 1 – Medical Examination Report Form – Ms. Gail Miller



Ms. Miller—Recertification Examination

Sex: Female | Age:44 | Height: 64” | Weight: 145 lbs.

Health History

Yes response(s): Muscular Disease.

Medication(s): interferon beta-1a (Avonex) 0.25mg SQ every other day.

Health History Comments

Ms. Miller was diagnosed with multiple sclerosis three months ago. She denies any side effects from the medication. She also denies vision and sensory symptoms, loss of balance, or headaches. She occasionally has an itch or tingling in her left upper arm. She is right-handed.

She sees her neurologist monthly for follow-up and has brought copies of her neurology records:

Magnetic resonance imaging reveals plaques that are suspicious for a demyelinating disease.

Lumbar puncture was normal.

Neurologist states that he is treating her for possible MS, and her neurological status has remained stable.

Vision
Uncorrected Acuity: Rt. Eye: 20/20 Lt. Eye: 20/20 Both: 20/20
Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: 80°
Meets standard only when wearing: corrective lenses? No
Color: Can distinguish red, green, and amber colors? Yes
Monocular Vision? No
Hearing
Hearing aid used for test? No
Hearing aid required to meet standard? No
Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet
Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A

Blood Pressure/Pulse
BP-106/72 P-84 & Regular
Urinalysis
SP. GR.: 1.020 Protein: Neg: Blood: Neg Glucose: Neg

Physical Examination Comments

Upper extremity strength is 5/5 on the right and 4/5 on the left. Lower extremity strength is 5/5 on the right and 5/5 on the left.

Reflexes are 2 plus bilaterally. Her grip strength was within the normal range, and she did not display any balance deficiencies.

The rest of the physical examination was unremarkable. She scored 27/30 on the Folstein test (minimal).

60. Ms. Miller's left arm has mild symptoms and is weaker than the right. At what level of left arm strength would the medical examiner certify Ms. Miller, using the provisions of alternate standard 49 CFR 391.49, which would require Ms. Miller to obtain a Skill Performance Evaluation (SPE) certificate?

61. Give examples of signs and symptoms resulting from the multiple sclerosis disease process that, at future driver physical examinations, would cause the medical examiner to disqualify Ms. Miller.

END OF MS. MILLER'S SCENARIO

62. What is the best determination outcome of this examination?

Scenario 2 – Medical Examination Report Form – Mr. Paul Nelson



Mr. Nelson—Recertification Examination

Sex: Male | Age:57 | Height: 67” | Weight: 130 lbs.

Health History

Yes response(s): Any illness or injury in the last five years? Medication(s): None.

Health History Comments

Mr. Nelson presents for “renewal of my DOT card”. His last FMCSA medical certificate was issued almost two years ago. When asked about illness in last five years, he stated that, “I had a bleed in my head that caused a little stroke about 8 months ago”. Upon further inquiry, you find that the he had a left-sided brain stroke (due to the “bleed” from an arteriovenous malformation [AVM]) resulting in a residual right-sided hemiplegia.

Mr. Nelson has not yet returned to work; apparently the neurosurgeon has not performed any surgical repair of the AVM at this point, and Mr. Nelson is not sure when or if a surgical procedure is to take place. He is still attending occupational and physical therapy.

Vision
Corrected Acuity: Rt. Eye: 20/25 Lt. Eye: 20/25 Both: 20/25
Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: 80°
Meets standard only when wearing: corrective lenses? Yes
Color: Can distinguish red, green, and amber colors? Yes
Monocular Vision? No
Hearing
Hearing aid used for test? No
Hearing aid required to meet standard? No
Whisper test: Rt. Ear: N/A Lt. Ear: N/A
Audiometric test hearing loss average: Rt. Ear: 33.3 Lt. Ear: 31.6

Blood Pressure/Pulse
BP-127/80 P-80 & Regular.
Urinalysis
SP. GR.: 1.030 Protein: Neg: Blood: Neg Glucose: Neg

Physical Examination Comments

Walks with a limp; drags his right leg; and his right, upper extremity hangs downward, being flaccid with mild internal rotation at the shoulder.

He has motor and sensory deficits consistent with a right-sided hemiplegia. Some question as to his recall ability (short term) and attention span.

Rest of examination is unremarkable

63. Once Mr. Nelson completes his occupational and physical therapy, will he be a candidate for alternative standard 49 CFR 391.49? What documentation would the therapist provide to indicate he is capable of performing the tasks of a CMV driver?

END OF MS. NELSON'S SCENARIO

MUSCULOSKELETAL (SP) MODULE STUDY QUESTIONS

64. According to 49 CFR 391.41, is a commercial motor vehicle (CMV) driver with the loss of a leg, foot, hand, or arm qualified to operate a CMV?

65. According to regulation, only _____ can grant drivers a SPE certificate.

66. According to regulation, what medical examiner documentation is required when a driver applies for a SPE certificate?

67. According to regulation, what is the certification period for a SPE certificate? What is the maximum certification period when medical certification must be accompanied by a SPE certificate?

68. Which of the following conditions would require the driver to complete qualifying procedures under 49 CFR 391.49?

- Missing fourth and fifth fingers of right hand; has strong hand grasp.
- Missing right foot since age two; uses prosthesis and runs marathons.
- Status post-crush injury to left arm; has atrophy and weakness in ulnar distribution.
- Suffering from carpal tunnel syndrome; has weak hand grasp.

69. Give examples of adapting clinical evaluation of the musculoskeletal system to ensure applicability when assessing CMV driver fitness for duty.

70. A driver presents for clearance to return to driving a CMV six weeks after arthroscopic carpal tunnel repair on his right hand. Can he be recertified, and, if so, for how long?

71. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Ms. Patricia O’Dell



Ms. O’Dell—Recertification Examination

Sex: Female | Age:42 | Height: 64” | Weight: 122 lbs.

Health History

Yes response(s): Any illness or injury in the last five years?

Medication(s): None.

Health History Comments

Ms. O’Dell had a cubital tunnel release in her right elbow four months ago. She did not bring any documentation from the surgeon and states that the physician retired two months after performing her surgery. She has not been seen by anyone else as part of surgical follow-up. She denies any prescribed medications and admits to taking an occasional over-the-counter ibuprofen (Motrin), mainly for menstrual cramps.

Vision
Uncorrected Acuity: Rt. Eye: 20/20 Lt. Eye: 20/20 Both: 20/20 Horizontal Field of Vision: Rt. Eye: 90° Lt. Eye: 90° Meets standard only when wearing: corrective lenses? No Color: Can distinguish red green and amber colors? Yes Monocular Vision? No
Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-122/72 P-67 & Regular

Urinalysis

SP. GR.: 1.020 | Protein: Neg: | Blood: Neg | Glucose: Neg

Physical Examination Comments

Physical examination reveals a recent scar on the right elbow, compatible with surgery about four months ago. Careful examination of strength in the upper extremities, focusing on grip strength, reveals symmetrical strength and mobility. The right elbow flexes and extends to a full range.

Nothing else is notable in the examination.

72. Is it reasonable to assume that she would not have been able to meet grip standards if she had not had surgery for cubital tunnel syndrome?

73. When a driver presents with symptoms of a condition, such as cubital tunnel syndrome, but meets standards, what would an examiner discuss with the driver?

END OF MS. O'DELL'S SCENARIO

DIABETES MELLITUS MODULE STUDY QUESTIONS

74. A medical examiner performed the initial examination of a driver with diabetes mellitus who uses insulin. The driver was otherwise medically qualified and given a medical examiner's certificate indicating that the driver must also have a federal diabetes exemption. The driver is:
75. What is the recommended certification interval for a driver with diabetes mellitus who does not use insulin?
76. Which diabetes mellitus risk poses the greatest threat to public safety?
77. Taking into consideration all the data received in Mr. Peter's examination and documentation, what do you feel is the appropriate outcome of this examination per the regulations and guidelines of FMCSA?

Driver stated that his primary care physician had diagnosed his diabetes mellitus approximately two years ago after having "sugar spillage" in his "DOT" urine sample. Subsequent "fasting blood sugar" confirmed "mild" diabetes mellitus. His initial reported HgbA1-c was "approximately 8" and Erik Peters was placed on a diet via dietician referral. He has lost approximately 50 pounds to date, and remains "only" on "diet control" for his diabetes. He has periodic blood glucose monitoring performed by his primary care physician with reevaluations conducted twice a year which include HgbA1-C testing.

Vision
Uncorrected Acuity: Rt. Eye: 20/25 Lt. Eye: 20/20 Both: 20/20
Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: 80°
Meets standard only when wearing: corrective lenses? No
Color: Can distinguish red, green, and amber colors? Yes
Monocular Vision? No
Hearing
Hearing aid used for test? No
Hearing aid required to meet standard? No
Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet
Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-134/80 P-86 & Regular

Urinalysis
SP. GR.: 1.030 Protein: Neg: Blood: Neg Glucose: Neg

The rest of his physical exam proved unremarkable.

OTHER DISEASES STUDY QUESTIONS

78. How does an examiner determine whether a gastrointestinal condition would potentially disqualify a driver?

79. List the four specific urinalysis tests results required for driver physical examination and identify which abnormal results would indicate further evaluation of the genitourinary system.

80. What would the medical examiner do next if a significant abnormal finding for urinalysis specific gravity, protein, and blood is found?

81. A driver is taking dicyclomine (Bentyl), 20 mg, QID for irritable bowel syndrome (IBS) with good control of symptoms. Is this driver qualified for certification?

82. Discuss the decision by a medical examiner to shorten a recertification interval or to disqualify a CMV driver with a history of kidney disease and/or kidney transplant.

83. What is the best determination outcome of this examination?

Scenario – Medical Examination Report Form – Ms. Jennifer Robinson



Ms. Robinson—Recertification Examination

Sex: Female | Age:42 | Height: 67” | Weight: 172 lbs.

Health History

Yes response(s): None.

Medication(s): None.

Health History Comments

Ms. Robinson presents for two year recertification examination. She reports a negative health history. She reports taking a daily multivitamin. She doesn't smoke or use alcohol.

Vision
Uncorrected Acuity: Rt. Eye: 20/20 Lt. Eye: 20/20 Both: 20/20 Horizontal Field of Vision: Rt. Eye: 90° Lt. Eye: 90° Meets standard only when wearing: corrective lenses? No Color: Can distinguish red, green, and amber colors? Yes Monocular Vision? No
Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-130/84 P-72 & Regular

Urinalysis

SP. GR.: 1.020 | Protein: 1+ | Blood: 4+nonhemolyzed blood Neg | Glucose: Neg

Hemoglobin 12.2

Physical Examination Comments

Second day of menses with heavy bleeding.

Nothing else is notable in the examination.

84. Are there any safety-related issues the medical examiner should point out to Ms. Robinson when advising her to seek primary care or specialist follow-up?

END OF MS. ROBINSON'S SCENARIO

PSYCHOLOGICAL MODULE STUDY QUESTIONS

85. According to medical guidelines, what are three areas of risk when a driver has a mental disorder?
86. According to medical guidelines, give examples of questions a medical examiner may ask to assist in determining certification of a driver with a history of psychological disorder.
87. When evaluating a driver with a psychological disorder that might interfere with safe operation of a CMV, what behaviors should an examiner look for?
88. According to medical guidance, can a driver be certified if he/she is taking amitriptyline for depression?
89. A driver with a history of depression presents taking a prescription selective serotonin reuptake inhibitor (SSRI) but appears depressed. What would the medical examiner do to adequately assess the driver?
90. According to medical guidelines, give examples of reported CMV driver symptoms and findings that may lead a medical examiner to decide not to certify the driver.

91. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Mr. John Smith



Mr. Smith—Recertification Examination

Sex: Male | Age:43 | Height: 71” | Weight: 190 lbs.

Health History

Yes response(s): Nervous or psychiatric disorders (e.g., severe depression; regular, frequent alcohol use).

Medication(s): paroxetine (Paxil) 40 mg, once daily.

Health History Comments

Mr. Smith provided a letter from his psychiatrist that is dated four months ago. Record includes:

- History of the suicide attempt six months prior to report (10 months prior to current examination).
- Suicide attempt followed the drowning death of two year old son in a swimming pool accident.
- Psychiatrist clearance to return to work and normal activities.
- Mr. Smith admits to seeking professional help because of feelings of excessive guilt over the incident; however, he denies current suicidal or homicidal ideation or hallucinations. He denies any adverse side effects from the paroxetine (Paxil). He admits to drinking several cups of coffee per day, drinking one to two beers on weekends only, and denies any other drug use. He says he needs to be certified to drive or he will lose his job. He has been a CMV driver and working for his current employer for the last 10 years with a “clean” driving record. Family history: His father had a history of depression and died of an acute myocardial infarction (AMI) at 83 years of age; his mother has a history of depression and remains functional on medication.

Vision

Uncorrected Acuity: Rt. Eye: 20/20 Lt. Eye: 20/20 Both: 20/20

Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: 80°

Meets standard only when wearing: corrective lenses? No

Color: Can distinguish red green and amber colors? Yes

Monocular Vision? No

Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-132/84 P-84 & Regular
Urinalysis
SP. GR.: 1.020 Protein: Neg: Blood: Neg Glucose: Neg

Physical Examination Comments

Although he related being stressed, his affect is normal, his appearance appropriate, and personal hygiene good.

Physical examination is unremarkable.

92. Discuss information the medical examiner should include when explaining the reason for disqualification, the time frame used, and what Mr. Smith needs to do in order to recertify.

END OF MR. SMITH'S SCENARIO

93. What is the certification decision in this scenario?

Scenario 2 – Medical Examination Report Form – Mr. Adam Taylor



Mr. Taylor—Certification Examination

Sex: Male | Age:22 | Height: 72” | Weight: 182 lbs.

Health History

Yes response(s): None.

Medication(s): None.

Health History Comments

Mr. Taylor presents for a first-time CMV driver certification. He states that he “feels fine.” All responses on history are “No.” He denies taking any medications. Admits to smoking two packs of cigarettes per day and drinks 10 “Jolt” colas per day. He presents with poor eye contact and flat affect.

Vision
Uncorrected Acuity: Rt. Eye: 20/20 Lt. Eye: 20/20 Both: 20/20 Horizontal Field of Vision: Rt. Eye: 90° Lt. Eye: 90° Meets standard only when wearing: corrective lenses? No Color: Can distinguish red green and amber colors? Yes Monocular Vision? No
Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: 31.6
Blood Pressure/Pulse
BP-120/68 P-96 & Regular.

Urinalysis
SP. GR.: 1.020 Protein: Neg: Blood: Neg Glucose: Neg

Physical Examination Comments

There is tremor at rest, with left eyelid tic.

Pupils sluggish, extraocular eye movements lack convergence.

His mouth is dry.

Refused to pull down his pants for the hernia exam; became agitated and stated that he “can’t undress”.

Mild ataxia. Romberg positive.

Significant concern about psychological pathology. Mr. Taylor declined to participate in Mini Mental Status Exam, saying, “These questions are dumb.”

94. What findings and interactions combine to support the need for a psychological evaluation?

END OF MR. TAYLOR’S SCENARIO

DRUG ABUSE AND ALCOHOLISM MODULE STUDY QUESTIONS

95. Is testing for controlled substances part of the requirement of the CMV driver physical examination?

96. What is the Advisory Criteria for the “Drug Use” definition of “habit forming”?

97. According to medical guidance, can a driver be certified while taking methadone for chronic pain management?

98. A driver checks “Yes” for “Regular, frequent alcohol use”. The medical examiner should determine the:

99. What concerns should a medical examiner have regarding a driver on multiple medications who reports regular, daily, moderate use of alcohol?

100. The medical examiner may require a driver to be evaluated by an SAP and successfully complete a rehabilitation course if the driver _____.

101. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Ms. Juanita Valdez



Ms. Valdez—Recertification Examination

Sex: Female | Age: 42 | Height: 52” | Weight: 150 lbs.

Health History

Yes response(s): None. Medication(s): None.

Health History Comments

Ms. Valdez admits to have just completed her “first ever” 30 day alcohol rehabilitation that was court mandated after her reported “DUI”. Ms. Valdez has a scheduled Alcoholic Anonymous meeting this evening. She is on no reported medication. She has had no known SAP evaluation, but admits to seeing “rehab counselors” and an “alcoholic doctor” evaluation within the “rehab” facility.

Vision
Uncorrected Acuity: Rt. Eye: 20/25 Lt. Eye: 20/20 Both: 20/20 Horizontal Field of Vision: Rt. Eye: 80° Lt. Eye: 80° Meets standard only when wearing: corrective lenses? No Color: Can distinguish red, green, and amber colors? Yes Monocular Vision? No
Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-138/86 P-96 & Regular
Urinalysis
SP. GR.: 1.030 Protein: Neg: Blood: Neg Glucose: Neg

Physical Examination Comments

No odor of alcohol on breath. No Hepatosplenomegally. No palmer erythema.

Rest of examination is unremarkable.

END OF MS. VALDEZ'S SCENARIO

102. What is the certification decision in this scenario?

Scenario – Medical Examination Report Form – Mr. Frank Wolf



Mr. Wolf—Recertification Examination

Sex: Male | Age: 22 | Height: 72” | Weight: 140 lbs.

Health History

Yes response(s): None.

Medication(s): None.

Health History

Medical staff reports that during ancillary testing, Mr. Wolf was acting “silly” and not always following verbal commands well.

Mr. Wolf admits to “past” use of illicit drugs and “overuse” of prescription narcotic medication. No history reported of arrests for such activities, and no reported history of “rehabilitation” treatment / Narcotics Anonymous attendance.

Vision
Corrected Acuity: Rt. Eye: 20/20 Lt. Eye: 20/20 Both: 20/20
Horizontal Field of Vision: Rt. Eye: 85° Lt. Eye: 85°
Meets standard only when wearing: corrective lenses? No
Color: Can distinguish red, green, and amber colors? Yes
Monocular Vision? No

Hearing
Hearing aid used for test? No Hearing aid required to meet standard? No Whisper test: Rt. Ear: 5 Feet Lt. Ear: 5 Feet Audiometric test hearing loss average: Rt. Ear: N/A Lt. Ear: N/A
Blood Pressure/Pulse
BP-138/88 P-96 & Regular
Urinalysis
SP. GR.: 1.020 Protein: Neg: Blood: Neg Glucose: Neg

Physical Examination Comments

No odor of alcohol on breath. Intermittently not responding to verbal commands.

Distal upper extremities skin with vein area needle tract marks of various ages, some appearing very fresh.

Eyes – pupils myotic OU, and not responsive.

Heel-to-toe examination is abnormal.

Rest of examination is unremarkable.

OVERVIEW MODULES STUDY QUESTIONS

103. What is the purpose of the Interstate CMV driver physical examination?

104. What is the mission of the FMCSA?

105. Who and what does FMCSA regulate?

106. Give examples of CMV driver stress factors.

107. What are the differences between the medical standards and the medical guidelines?

108. In which regulation(s) are the driver physical qualification standards and medical examiners responsibilities cited?

109. What objective tests and measurements are required as part of the driver physical examination?

110. What are the possible outcomes of the driver physical examination?

111. What date is used to determine medical examiner's certificate expiration?

112. What is the medical examiner certificate expiration date for the following drivers?

- Driver A – Examination 4/16/2011 – Meets standards in 49 CFR 391.41; qualifies for two year certificate.
- Driver B – Examination 4/16/2011 – Meets standards, but periodic monitoring required due to hypertension – driver qualified for 1 year.
- Driver C – Examination 4/16/2011 – Disqualified due to not having results of post - CABG stress test for review. 4/25/2011 – Return to medical examiner's office with test results (attached) – driver qualified for one year.
- Driver D – Examination 4/16/2011 – Disqualified due to diagnosis of benign positional vertigo 3/15/2011 – Return to medical examiner's office for Certification Examination on 5/20/2011. Note asymptomatic since 3/11/2011 but periodic – driver qualified for two years.



ANSWER GUIDE FOR FMCSA MEDICAL EXAMINER

VISION MODULE ANSWERS

1. The FMCSA certified medical examiner, a licensed optometrist, or an ophthalmologist may perform the vision portion of the CMV driver physical examination. When a specialist provider performs the vision exam, in addition to recording the results, the provider should complete and sign the provider's information as indicated at the bottom of Section 3: Vision of the Medical Examination Report.
2. 20/40 Snellen. The driver must meet the distant acuity requirement in each eye individually and in both eyes combined.
3. Retinopathy, cataracts, aphakia, glaucoma, and macular degeneration.
4. Mark the Medical Examination Report as incomplete and wait for specialist vision examination report to determine if left eye horizontal field of vision meets qualification requirements.
5. Does the driver have diplopia or cortical suppression? Has depth perception been compromised? Is the driver functionally monocular?

HEARING MODULE ANSWERS

6. Ear disorders. Loss of hearing. Loss of balance.
7. No, the minimum whisper test passing distance is equal to or greater than five feet in the better ear. The driver must be given an audiometric hearing test.
8. Yes, the average hearing loss in the right ear is less than 40 dB.

Audiometric test calculations

Rt. Ear $(30 + 45 + 40) / 3 = 38.33$ dB — 38.33 dB < 40 dB = Pass

Lt. Ear $(45 + 45 + 35) / 3 = 41.67$ dB — 41.67 dB >40 dB = Fail

9. Certify Mr. Chin for two years. To meet certification standards, the driver only needs to pass one test in one ear. Mr. Chin passed the forced whisper test with his right ear. There were no other medical findings that would require more frequent monitoring.
10. Test Mr. Chin's hearing using audiometry. By regulation, a driver need only pass one test with one ear to meet the hearing standard.
11. There are many variables that can impact the validity of the test, such as estimating instead of measuring the distances, performing the test in a room with poor acoustics or subject to outside noise or other distractions. The medical examiner should attempt to control as many of the variables possible, so the test is given as consistently as possible.
12. No, the left ear hearing loss has been stable for years; however, Mr. Chin may be at risk for noise induced hearing loss. Suggesting an inquiry into precautions to take to reduce risk of better hearing loss may be appropriate.

CARDIOVASCULAR MODULE ANSWERS

13. Yes, provided the AMI was at least two months prior to the date of the CMV driver physical examination, the driver meets all the other recommended cardiac qualification criteria, and the driver meets all meets all the other standards for interstate CMV drivers.
14. No. The ejection fraction needs to be greater than 40% for the driver to be certified.
15. The driver must Be asymptomatic, have no ventricular arrhythmias, have a left ventricular ejection fraction (LVEF) greater than 40%, be under the care of a cardiologist or appropriate medical professional.
16.
 - a. Medically disqualified. According to current CVD recommendations, the driver who had PCI should have cardiology follow-up to include ETT three to six month's post-PCI.
 - b. Medically qualified: According to current CVD recommendations, the driver who had CABG surgery may be qualified at 3 months post-procedure if asymptomatic, LVEF

greater than 40%, and meets all other recommendations (qualify with annual recertification).

- c. Medically disqualified. According to current CVD recommendations, a driver with CHF with symptoms is not medically fit for duty.
 - d. Medically disqualified. According to current CVD recommendations, a driver with unstable angina is not medically fit for duty.
17. No. For a driver to be certified, the abdominal aortic aneurysm should be less than 5 cm in diameter.
18. Yes. For up to one year. According to current CVD recommendations, a driver with a successfully repaired abdominal aortic aneurysm can return to driving three months postoperatively, if their surgeons clears them to do so, but they must be rechecked every year.
19. Fatigue, swelling in the legs, ankles, or other parts of the body, and shortness of breath, particularly if at rest (dyspnea).
20. Meets standards, but periodic monitoring is recommended due to multiple risk factors for CHD and is over 45 years of age. One year certificate.

The medical examiner identified that Ms. Donovan has multiple risk factors for coronary heart disease, but she does not have a current clinical diagnosis. She is not on any treatment and presents without symptoms or signs. She does not have any risk-equivalent co-morbidities of diabetes or peripheral vascular disease.

According to current medical guidelines, (page 9 of the 2002 cardiovascular report) a commercial driver who has multiple risk factors for CHD and is 45 years of age or older should be re-certified annually. Disqualification requires that the commercial driver has a higher than acceptable likelihood of acute incapacitation from a cardiac event.

21. Non-modifiable

- Family history of premature heart disease – Noted cardiac events and age of the parents when events occurred.
- Increased age – Noted driver age of 62 years.
- Gender (male or postmenopausal female) – Noted driver is postmenopausal female.

Modifiable

- Hypertension systolic >140 mmHg or diastolic >90 mmHg.

- Tobacco smoking – current or recent past (<1 year). Noted smoking history.
- Hypercholesterolemia – Noted positive family history.
- Low HDL.
- Diabetes mellitus – Accepted history.
- Overweight or obese – Noted denial of special diet.
- Physical inactivity – Noted denial of exercise routine.
- Nutritional habits (contributing by not definite CHD risk factor) – Noted denial of special diet.

22. General information in the Medical Examination Report states that “Medical conditions should be recorded even if they are not cause for denial, and they should be discussed with the driver to encourage appropriate remedial care. This advice is especially needed when a condition, if neglected, could develop into a serious illness that could affect driving.”

While the medical examiner gave the appropriate advice, it would have been more complete adding that she is at risk for developing conditions that could lead to disqualifications, but are less likely to do so if identified and treated early.

The medical examiner could also have explained that since age is a non-modifiable risk factor, more frequent monitoring conforms to FMCSA medical guidelines

23. The medical examiner used current cardiovascular guidance that include having the driver complete a minimum three month waiting period to allow or sufficient time for the sternum to heal. The medical records provided by the driver also needed to include a post-surgical LVEF measurement that was greater than 40% to meet certification guidelines.

Recall that post-CABG guidance for certification also includes that the driver:

- a. Has cardiologist clearance for driving.
- b. Is asymptomatic.
- c. Tolerates medication.
- d. Has no side effects that interfere with driving.

24.

- a. The driver is only six weeks post-CABG and should be at least three months.
- b. Although the cardiovascular surgeon has indicated that the driver is fit to drive, the medical examiner is the one who determines if the driver meets qualification standards.
- c. Auscultation reveals an S4 which should be evaluated.

- d. Will apply from the date of the medical examination of the driver that has a certify outcome. Recall that the recommended waiting period is for minimum time lapse before considering the driver for certification.
- e. The date of surgery is the date used to determine when the driver is five years post-CABG and when to begin having the driver obtain an annual ETT as part of the medical examination.
- f. The medical examiner notes an S4 gallop. Radionuclide stress testing or echocardiographic myocardial imaging is indicated if the driver is not able to achieve a satisfactory ETT result, has a dysrhythmia, or has an abnormal resting electrocardiogram.
- g. Driver needs to have a resting echocardiogram or provide a copy of a documented report of an echocardiogram performed in-hospital after CABG. Disqualification occurs in the presence of left ventricular dysfunction (ejection fraction <40%).
- h. N/A – No medications were listed.

25. The medical examiner certified the driver for three months to follow up on lab and stress test results.

The cardiovascular standard requires the driver: “have no current clinical diagnosis of myocardial infarction, angina pectoris, coronary insufficiency, thrombosis, or any other CVD of a variety known to be accompanied by syncope, dyspnea, collapse, or congestive cardiac failure.”

Neither the primary care provider or cardiologist examinations of Mr. Gray confirmed a diagnosis of CHD. It is not the role of the medical examiner to diagnose and treat the driver; however, the medical examiner decides whether the nature and severity of the condition is such that the driver is at a high risk for sudden incapacitation.

The physical examination was unremarkable and Mr. Gray had resumed normal activities prior to examination. Nor does the primary care provider report or the cardiologist report indicate the driver is at an increased risk for a CHD event. The underlying cause of chest pain episode appears to be chest wall musculature stress; however, the driver is scheduled for additional lab work and stress testing.

The medical examiner shortened the interval to ensure the laboratory work and stress test results are considered before making a final decision on the certification period.

26. If the medical examiner follows up on the test results and does not perform a complete examination of the driver, with no current clinical diagnosis of cardiovascular disease, may be certified for up to two years from the date of the original examination.

If the medical examiner performs a complete physical in addition to reviewing the test results, with no current clinical diagnosis of cardiovascular disease, may be certified for up to two years from the day of examination.

Whether or not the medical examiner performs a complete physical is dependent on whether or not the driver returns to the same examiner.

HYPERTENSION MODULE ANSWERS

27. One year

28. A CMV driver with a Stage 3 blood pressure should be immediately disqualified until the blood pressure is controlled below 140/90. The driver presents an unacceptable risk for an acute hypertensive event that endangers the safety and health of the driver and the public.

29. Six month certification if the driver also tolerates medication with no side effects that interfere with driving ability.

30. Stage 3.

31. 140/90 through 159/99 or 140-159/90-99.

A BP of 140/90 should be confirmed with a second reading during the examination:

- If the second reading is less than 140/90, the medical examiner may choose to certify for up to 2 years if the driver is not taking anti-hypertensive medications. If the driver is taking antihypertensive medications, 1 year would then be the maximum certification period.
 - If the second reading is greater than 140/90, the medical examiner should use Stage 1 guidance for certification.
 - If both readings are 140/90, the medical examiner may obtain an additional reading or use his/her clinical judgment and consider BP and overall driver medical fitness for duty to determine certification status and certification period.
32. One-year certification is based on the date of the initial certification examination. If the medical examiner performs a complete recertification examination, in addition to following up on BP, then the one year expiration would be based on the current date.

33. Ms. Hall meets all physical qualification standards except for a confirmed Stage 1 hypertension. Using the medical guidelines for recertification of a driver with a known diagnosis of and treatment for hypertension, the medical examiner certifies Ms. Hall for three months. This is her first examination at which she has a BP that is greater than 140/90. This allows her to continue to drive, while she takes actions to lower her BP.

In Ms. Hall's case, making sure she follows her medication regimen may be the action required to effectively lower her BP. Within the three month certification period, Ms. Hall should return for a follow-up BP measurement. If she has a BP less than 140/90, the medical examiner may issue a one year certificate. The expiration date is one year from the date of the physical examination, not the follow-up date, when only her BP is checked.

34. At the time of examination, Ms. Hall had:
- Missed her scheduled medication.
 - Not had a chance to rest following a long shift.
 - Recently consumed several cups of coffee.
 - Been smoking cigarettes immediately prior to the examination.
 - Concerns about medical examiner's certificate expiring.
35. At the time of examination, Ms. Hall had:
- No history or findings of end-organ impairment.
 - Medication doses that are not at maximal level and she is only prescribed two drugs to manage hypertension.
 - History that points to primary hypertension that has responded well to medical treatment.
 - Normal urinalysis.
 - Stage 1 hypertension, which by definition does not present an immediate risk to driving ability.

RESPIRATORY MODULE ANSWERS

36. Any pulmonary process that is likely to interfere with driver ability to operate a CMV safely, either due to history or clinical diagnosis, is medically disqualifying. Examples include:
- Bronchiectasis with hemoptysis or with episodes of life-threatening pulmonary infection. Chronic pulmonary tuberculosis (TB).
 - Chronic obstructive pulmonary disease (COPD), with a cough severe enough to induce syncope.
 - Asthma that requires frequent hospitalizations or that shows severe enough pulmonary dysfunction to put the driver at risk for loss of awareness or attention.
37. To be qualified, the driver should meet a minimum arterial blood gas (PaO₂) greater than 65 mm Hg. Drivers with acute (reversible) cor pulmonale may be certified after successful treatment, when they can meet the above criteria for qualification.

Treated or untreated patients with pulmonary hypertension or cor pulmonale who exhibit dyspnea at rest, dizziness, or hypotension (may be a side effect of medication) should not be qualified to drive.

38. Greater than 65% FEV₁ of predicted.
39. According to medical guidance, drivers should abstain from using any form of antihistamines, with known sedative side effects and narcotic-based antitussives, for the 12 hours prior to driving. Medical examiners have concerns about side effects of which the driver may be unaware, yet still could be impairing safe operation of a CMV, such as decreased alertness, reaction time, and memory. In this example, medical examiner discussion with the driver may include: Informing driver of risks associated with using antihistamines within 12 hours of driving. Advising the driver to consult with a primary care provider to evaluate the chronic congestion and obtaining treatment that does not interfere with safe driving.
40. Do not certify. The history clearly suggests that the asthma that the driver has requires frequent hospitalizations and has the potential for respiratory dysfunction that could impair the ability to operate a CMV safely. Appropriate advice to the driver includes recommending that the driver see his primary care physician or a pulmonologist who may be able to provide treatment to effectively control the asthma, such that the driver meets respiratory qualification requirements.
41. Do not certify. According to recommendations, this driver should not be certified until the medical examiner has verified that the recovery is complete, with x-rays, and the driver has a FVC greater than 65%.
42. Do not certify. According to recommendations, this driver should not be considered medically qualified if no surgical procedure has been done to prevent recurrence.
43. Disqualify - pending pulmonary function testing.
Physiological impairment is potentially present in many lung disorders. Therefore, simple pulmonary function testing should be performed for CMV drivers who have any of the following indicators:
 - A history of any specific lung disease.
 - Symptoms of shortness of breath, cough, chest tightness, or wheezing.
 - Cigarette smoking in applicants aged 35 or older
44. Forced expiratory volume in 1 second (FEV), Forced vital capacity (FVC), FEV/FVC ratio.
45. Medical guidance says that additional testing is indicated if the FEV₁ is less than 65% of the predicted value, and if the FEV₁/FVC ratio is less than 65%. These individuals should have oximetry or an arterial blood gas analysis.

Mr. Johnson's results are borderline, with FEV just below and FEV/FVC just above. FMCSA also encourages erring on the side of public safety. Additional pulmonary testing is a reasonable course of action.

46. The pulse oximetry O₂ saturation was less than 92% which indicated obtaining an ABG. His PaCO₂ of 42 mm Hg meets recommended standards. His PaO₂ of 60 mm Hg meets recommended standards when the altitude is over 5,000 feet but not at altitudes less than 5,000 feet. The tests were run at altitudes less than 5,000 feet. He should be disqualified.
47. Changes in altitude can affect a CMV driver's readings, favoring the driver if coming from high altitudes and being examined in lower altitudes (and less favorable if reversed). The medical examiner may suggest Mr. Johnson report relevant trip history involving time spent in altitudes above and below 5,000 feet at the specialist's evaluation.
48. Disqualify pending pulmonary testing. The O₂ saturation of 87% indicates the driver is hypoxic. Even though the driver states that he has no symptoms, performing the mild activity required for the medical examination causes him to be short of breath.

Medical Advisory Criteria for 49 CFR 391.41(b)(5) says, "If the medical examiner detects a respiratory dysfunction, that in any way is likely to interfere with the driver's ability to safely control and drive a CMV, the driver must be referred to a specialist for further evaluation and therapy."

49. The medical examiner could have had the driver jog in place for a short time, repeat stepping up and down on a step stool, or engage in any mild activity that duplicates the stress level of walking to the examination room.

The medical examiner signs the Medical Examination Report and is accountable for accuracy. When an examiner has to disqualify a driver, a good practice is to personally verify any staff-reported medical evidence that contributes to the decision. Then there is no question of a decision being made on what a driver may consider to be inadequate evaluation.

50. Inform the consulting provider that federal guidance CMV driver physical qualification examinations include not certifying for CMV driving any individual with one or more of the following:
 - PaCO₂ greater than 45 mmHg.
 - Diagnosis of pulmonary hypertension, with or without cor pulmonale, accompanied by symptoms of dyspnea, dizziness, or hypotension.
 - Paroxysms of cough leading to cough syncope.
51. Mr. Lopez's CPAP has a recorder which indicates consistent use. Qualify for one-year. Schedule follow-up prior to expiration with documentation from healthcare provider treating sleep apnea.

With the implementation of the National Registry, which requires medical examiners to report the outcome of every CMV driver physical examination, a certification decision must be made.

The examination did not reveal any indicators that Mr. Lopez is at risk for gradual or sudden incapacitation. Medical guidance does say that a driver diagnosed with a sleep disorder should be monitored. This decision allows the driver to continue to drive while obtaining sleep disorder evaluation.

52. Assuming that the treating provider report indicates that Mr. Lopez is medically fit for duty, the medical examiner could:

- Use the date of the initial examination to certify Mr. Lopez, if not performing a complete examination.
- Perform a complete examination and certify Mr. Lopez from the follow-up date.

Note: If Mr. Lopez brought the sleep evaluation record to a new medical examiner, that examiner would have to complete a full examination before determining driver certification status.

53. Annual objective sleep test verifying that current CPAP treatment is effectively controlling his sleep apnea. Annual recertification.

Continued use of CPAP, as directed, and verification that his equipment is operating correctly. Advise driver that losing weight and increasing exercise may be beneficial.

NEUROLOGICAL MODULE ANSWERS

54. Epilepsy.

55. Episodic neurological conditions that are disqualifying include:

- Extreme headaches—such as migraine, cluster headache, and neuralgia—that could affect the ability to remain cognizant of driving conditions and tasks.
- Vertigo.
- Diagnosed epilepsy treated with anticonvulsant medication.
- Narcolepsy.
- Sleep apnea, untreated.
- Idiopathic Central Nervous System Hypersomnolence and Primary Alveolar Hyperventilation Syndrome.
- Restless legs associated with disorder of excessive somnolence (RLS-DOES) syndrome.

56. According to medical guidance, the driver with a diagnosis of dementia (severe) or transient ischemic attacks (under one year) should not be certified.

57. Levodopa/carbidopa (Sinemet) is used for the treatment of Parkinson's disease and Parkinson's syndrome.

58. Describe "No functional residual."

- Lack of impairment. The individual would have no residual neurological deficit, as determined by a neurologist, and no impairment is present that, in any way, affects the

functional ability of the individual to drive a CMV safely.

Discuss future risk associated with TIA.

- TIAs are associated with a high rate of recurrence during the first year. A TIA is an important warning sign of a potentially severe stroke. The risk is high, whether the patient has had one or several attacks. One year after the TIA, the risk of recurrent cerebrovascular symptoms has declined to less than 5% per year.

Discuss recommended criteria for certification.

- There would be an automatic one-year CMV driving disqualification. After one year, the certification would depend on the interval history, general health, neurological examination, and compliance with the treatment program.

59. Meets standards, but periodic monitoring required due to possible diagnosis (and progressive nature) of multiple sclerosis. One-year certificate.

Ms. Miller's physical exam is essentially normal, other than left upper arm tingling and itching, which may represent early signs of MS. Her left arm strength is 4/5 (which is still good), with prehensile grasp and pincher ability adequate to perform CMV driver manual hand tasks. She doesn't display all the typical symptoms of an advancing disease process. There do not appear to be any cognitive deficits present. Her diagnosis is "possible MS".

60. The medical examiner should not use the provisions of alternate standard 49 CFR 391.49 because multiple sclerosis is a progressive disease process, not a fixed deficit. The SPE certificate is only for individual fixed deficits (e.g., missing limb).

61. The medical examiner would not certify the driver if:

- Ms. Miller shows signs of progression that interfere with her ability to operate a CMV safely.
- Ms. Miller's neurologist identifies functionally significant neurologic signs and symptoms.
- She has an abnormal MRI and triple-evoked potential studies revealing new lesions, compared to prior evaluations made at least one year apart.
- She has a history of excessive fatigability or periodic fluctuations in motor performance, especially in relation to heat, physical and emotional stress, and infections.

62. Mr. Nelson was disqualified because:

- He has had a ruptured AVM that has not been surgically treated to prevent additional bleeding.
- He has right-sided hemiplegia.
- He exhibits cognitive impairment during the history and physical examination.

63. No. The cognitive impairments and unrepaired AVM are both disqualifying regardless of compensatory measures for the hemiplegia. While documentation from the therapist would be useful to the medical examiner determining driver medical fitness for duty, the therapist does not determine if the driver is capable of performing the tasks of the CMV driver. The medical examiner makes that determination.

When a medical examiner determines that a driver is otherwise medically fit for duty except for meeting the physical qualification requirements of 49 CFR 391.41(b)(1) or (b)(2), the medical examiner may stipulate that driver must obtain an SPE certificate, which is issued by the FMCSA.

MUSCULOSKELETAL MODULE ANSWERS

64. Yes, if the driver meets all other standards except for a fixed deficit of the lost extremity, and the driver has been granted a Skill Performance Evaluation (SPE) certificate pursuant to 49 CFR 391.49.
65. Only FMCSA can grant drivers a SPE certificate.
66. The driver must include copies of the Medical Examination Report, status section, and the medical examiner's certificate, indicating that medical certification must be "accompanied by a SPE certificate".
67. The SPE certificate is issued for two years. The otherwise medically qualified driver with a fixed deficit requiring a SPE certificate may be certified for up to two years.
- 68.
- a. Does not require 49 CFR 391.4 for certification. The medical examiner can assess for adequate grip strength; however, if any question of ability exists, medical examiner may request a treating or specialist evaluation.
 - b. Requires 49 CFR 391.4 for certification. Regardless of the driver's ability to adapt to other challenges, the driver must still demonstrate adequate skill in operating a CMV with his/her fixed deficit.
 - c. Requires 49 CFR 391.4 for certification. The driver must demonstrate adequate skill in operating a CMV with his/her fixed deficit, even if it is impairment and not loss of the extremity.
 - d. Does not require 49 CFR 391.4 for certification. Only fixed deficits can be qualified using the alternate standard. Carpal tunnel syndrome can be treated or, left untreated, can worsen causing increased impairment. Certification occurs only if the weakness in grasp is a fixed deficit, after maximal treatment, preventing any future deterioration from carpal tunnel syndrome.

69. Examples could include:

- a. Using resistive force or a dynamometer to have the driver demonstrate grip strength.
- b. Have driver simulate the range of motion and coordination of hands and leg required for steering and changing gears when operating a CMV.
- c. Having the driver demonstrate shoulder joint mobility, arm and leg muscle strength required to enter and exit the cab, and other driver-related duties.
- d. Having driver perform activity that demonstrate the ability to maneuver and maintain balance while under the trailer. Having the driver demonstrate cervical range of motion sufficient to look in either side mirror of an oversized CMV.
- e. Instructing the CMV driver to maintain an upright, seated posture against resistance offered, in all directions, to demonstrate stability of trunk muscles.

70. The medical examiner would confirm that the driver meets standards by testing to determine if grip strength, prehension, sensation, and range of motion are sufficient to control the steering wheel and shift gears, as well as to perform other job tasks. The driver can be certified for two years, as long as he meets all other qualification standards.

71. Based on clinical examination, the surgical site is completely healed, and no residual damage resulting from the surgery is apparent. She meets all other standards.

72. No. Since cubital tunnel syndrome predominantly affects the fourth and fifth fingers, and the majority of the grip strength is driven by the thumb, index, and middle fingers, the preservation of sufficient grip strength to meet standards is not unusual; however, if left untreated in individual cases, it could progress to affecting the rest of the hand.

73. Medical examiner should encourage primary care evaluation and, as appropriate, may suggest driver inform primary care provider of specific job demands or qualification standards, since the provider may not be familiar with the physical demands of CMV driving or the federal regulations governing CMV driver medical certification.

DIABETES MELLITUS MODULE ANSWERS

74. The driver is disqualified from commercial driving until they have a federal diabetes exemption.
75. The recommended certification interval is one-year.
76. Hypoglycemia poses the greatest risk to the safety of the public.
77. The historical and ancillary information appear congruent regarding his diabetes mellitus. Mr. Peter's clinical examination did not reveal signs of target organ effects/damage due to his diabetes mellitus. There is no history of hypoglycemic events and/or gradual or sudden incapacitation. Laboratory studies confirm control of diabetes mellitus and compliance with his outlined treatment regimen. Certify Mr. Peters for one year.

OTHER DISEASES MODULE ANSWERS

78. If the gastrointestinal condition is one that might produce symptoms or physical changes that would potentially impair driver ability to control or drive a CMV safely; the disease should disqualify the driver until it is resolved.
79. Specific gravity, protein, blood, and glucose. Abnormalities in one or more of the first three may indicate further evaluation of the genitourinary system. Glycosuria may indicate that the driver has undiagnosed or poorly controlled diabetes mellitus.
80. Medical examiners use their clinical expertise to determine if additional evaluation is required and request or recommend primary care provider follow-up.
81. Yes, as long as the medication adequately controls the symptoms. This medication is unlikely to be habit-forming and is unlikely to cause any impairment of the safe operation of a CMV. Poorly-controlled IBS may be more of an issue. Since this driver's symptoms are well controlled with this medication, he/she may be certified.
82. Discussion points can include the following: individualize each decision; document specific, relevant data concerning the disease, severity, stability, medication and medication side effects/adverse reactions; CMV driver functional status and abilities (especially referring to his/her ability to control and operate a CMV safely and performing all the required FMCSA-outlined CMV driver physical demands); and written input from the CMV driver's specialist.
83. Meets standards in 49 CFR 391.41; qualifies for two year certificate. The underlying cause for abnormal findings were identified, not disqualifying, and presents no imminent individual or public safety risk.

84. Excessive bleeding can lead to anemia, making her more easily fatigued and affect the physical demands required for the job making her less able to safely perform the job of CMV.

PSYCHOLOGICAL MODULE ANSWERS

85. Risks associated with:

- The symptoms of the mental disorder itself.
- Residual or recurrent symptoms after time-limited, reversible episodes, or initial presentation.
- The side effects of the medication taken for the disorder

86. **Applicable questions include:**

- Have you ever been hospitalized for a psychiatric issue?
- Have you ever thought of hurting yourself?
- Have you ever thought of suicide?
- Have you attempted to commit suicide through crashing a vehicle?
- Do you often fight?
- Do you think or have you ever thought of hurting or killing other people?
- Do you experience problems concentrating or remembering things?
- Do you hear or have you heard voices that other people do not hear or have not heard?
- Do you see or have you seen things that other people do not see or have not seen?
- Do you take any medications for a nervous disorder?

87. According to medical guidelines, a medical examiner should look for:

- Any suspicious, evasive, threatening, or hostile behaviors.
- Signs of being easily distracted.
- Signs of flat affect or lack of emotional response.
- Displays of unusual or bizarre ideas, auditory or visual hallucinations, dishonesty, or a tendency to omit important information.

88. According to medical guidance, drivers taking amitriptyline should not be certified. However, this is a medication that may be prescribed in small dosages. Some medical examiners, in consultation with appropriate mental health professionals, may determine that a driver is stable and has no adverse side effects that interfere with driving. Documentation should indicate that the rationale and medical evidence that supports the certification decision.

89. The medical examiner should have the driver evaluated by an appropriate mental health professional, who would treat and monitor the driver (e.g., adjust medication dosage or type to achieve effective treatment of the depression).

Before the medical examiner would certify the driver, the driver would have to complete a symptom-free waiting period and have an effective, well tolerated treatment plan, with no side effects that impair the ability of the driver to operate a CMV safely.

90. On a case-by-case basis, the degree/level of severity of symptoms and/or findings requires evaluation. Some examples include:

- Emotional/adjustment problems — Have been linked to changes in memory, reasoning, attention and judgment (e.g., severe bereavement).
- Functional Disorders — May cause drowsiness, dizziness, confusion, weakness, and paralysis, which may lead to poor coordination, inattention, loss of functional control, and increased risk of crashes while driving.
- Physical fatigue, headache, impaired coordination, recurring physical ailment, chronic “nagging” pain (e.g., severe cluster headaches) to a degree that CMV driving is inadvisable.

Disorders of periodic incapacitation may warrant disqualification (e.g., schizophrenia, bipolar mood disorder).

91. Disqualify the driver until successful completion of recommended waiting period, then re-examine driver. According to medical guidelines, following a severe depressive episode, suicide attempt, or manic episode, driver should be symptom-free for one year.

92. Explain that the medical examiner is following FMCSA medical guidelines, which say a driver should complete a one year, symptom-free waiting period before recertification consideration following a suicide attempt. Next steps could include obtaining a current evaluation by the psychiatrist to evaluate risks associated with divorce and child custody stress.

Related item discussion could include the following with the medical examiner:

- Contacting the employer and explaining the conditions of the temporary disqualification of the driver.
- Providing the driver with a copy of the Medical Examination Report. The report documents the reason for temporary disqualification and states when the driver may be certified, if at that time he meets FMCSA physical qualification requirements.

93. Disqualify pending mental health and neurological examinations. The minimal physical examination was also not able to be completed, thereby resulting in disqualification.

94. Mr. Taylor is uncooperative, has inconsistent responses, has flat affect and is easily provoked, and the medical examiner is unable to perform a reliable history and physical examination.

DRUG ABUSE AND ALCOHOLISM MODULE ANSWERS

95. No. However, the medical examiner may require additional testing, including testing for controlled substances, if indicated.
96. The term “habit-forming” is intended to include any drug or medication generally recognized as capable of becoming habitual, and impair the user’s ability to operate a CMV.
97. Methadone is a habit-forming narcotic that can produce drug dependence. Methadone is not an allowable drug for CMV operators.
98. Time pattern for alcohol use (e.g., every day).
Quantity of alcohol ingested (e.g., six 12 oz. beers each weekend).
99. The driver should be evaluated for:
- Current alcoholism.
 - Medication interaction with alcohol, potentially causing impairment.
 - Effects alcohol may have on the underlying condition.
 - The impact of alcohol on medications, including effectiveness of treatment, and leading to other side effects.
100. Admits to alcohol or drug abuse.
101. Disqualify, pending Substance Abuse Program (SAP) evaluation.
Ms. Valdez appears to have an active diagnosis of alcoholism. Therefore, pending additional information, including SAP evaluation, Ms. Valdez should not be qualified to operate a CMV currently with an apparent diagnosis of alcoholism.
102. Disqualify, pending SAP evaluation.

Notify driver and employer of narcotic use/illicit drug use, and current examination reveals signs that he may currently be under the influence of some substance; therefore, pending additional information, including SAP evaluation:

- Mr. Wolf should not be qualified to operate a CMV currently.
- Due to public safety issues if Mr. Wolf is allowed to leave the examination facility and operate any type of motor vehicle on his own, both the driver and his employer should be notified of that. With the available information, Mr. Wolf is at elevated risk for harm to self and others (the public) with current operation of any type of motor vehicle;

therefore, another form of transportation from the examination facility must be secured.

- The medical examiner signs the Medical Examination Report and is accountable for accuracy. When an examiner has to disqualify a driver, it is a good practice to verify any staff-reported medical evidence that contributes to the decision.

OVERVIEW MODULE ANSWERS

103. The purpose of the driver physical examination is to detect the presence of physical, mental, or organic conditions of such character and extent as to affect the driver ability to operate a CMV safely. This examination is for public safety determination and is considered by FMCSA to be a “medical fitness for duty” examination.

104. FMCSA is focused on reducing crashes, injuries, and fatalities involving large trucks and buses.

105. The FMCSA regulates interstate commercial operation, including the driver, vehicle, motor carrier, and the transport of hazardous materials.

106. Stress factors may include:

- Interruption of normal sleep, exercise, and eating patterns and access to social support networks resulting in fatigue, obesity, and/or alienation of affection.
- Environment that may have excessive vibration, noise, and extremes in temperature, and/or adverse road or traffic conditions can interfere with driver ability to recognize a driving hazard, cause temporary or permanent physical damage to sensory perception or affect driver behavior.
- Increased potential for injury and fatalities should there be a crash when driver is responsible for passenger safety or hazardous cargo.

107. The regulations are law and are mandatory. The medical examiner must use the standards found in 49 CFR 391.41 to determine interstate CMV driver medical fitness for duty. Medical guidelines are not regulatory; the medical examiner may choose not to follow the medical guidance. They are based on expert review and intended to assist the medical examiner in determining driver certification.

108. Driver physical qualification standards are found in 49 CFR 391.41. Medical examiner responsibilities are found in 49 CFR 391.43.

109. Driver:

- Height and weight.
- Vision.

- Hearing.
- Blood pressure and pulse.
- Urinalysis (dipstick) for specific gravity, protein, blood, and glucose.

110. Certification. Disqualification.

111. Date noted on the medical examination report form; the day the physical examination was started.

112.

- Driver A – Expiration date 4/16/2013 (two years from date of physical examination).
- Driver B – Expiration date 4/16/2012 (one year from date of physical examination).
- Driver C – Expiration date 4/16/2012 (one year from date the physical examination was started, not the follow-up date when driver returned with test results needed to complete physical examination).
- Driver D – Expiration date 5/20/2013 (Time and conditions of waiting periods should be completed before considering the driver for certification. Therefore the medical examiner disqualified the driver, explaining that a two month, symptom free waiting period must elapse. The medical examiner performed a complete physical examination, including starting a new medical Examination report form on 5/20/2011 and determined the driver could be certified for two years. The expiration date is two years from the date the examination was performed).