

# **DOT Medical Examiner Certification Training Case Studies I**

**Enterprise  
Development  
Group**

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# Musculoskeletal

- 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?
- 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.

# Musculoskeletal

- According to regulation, only \_\_\_\_\_ can grant drivers a SPE certificate.
- Only FMCSA can grant drivers a SPE certificate. (The four FMCSA regional centers, including contact information and territory serviced, are listed on the FMCSA Web site SPE program page.)

# Musculoskeletal

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

# Musculoskeletal

- 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?
- 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.

# Musculoskeletal

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

1. Missing fourth and fifth fingers of right hand; has strong hand grasp.

No. 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.

2. Missing right foot since age two; uses prosthesis and runs marathons.

Yes. 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.

3. Status post-crush injury to left arm; has atrophy and weakness in ulnar distribution.

No. Ulnar nerve distribution would not affect grip strength.

4. Suffering from carpal tunnel syndrome; has weak hand grasp.

Yes. 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.

# Musculoskeletal

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

Using resistive force or a dynamometer to have the driver demonstrate grip strength.

Have driver simulate the range of motion and coordination of hands and leg required for steering and changing gears when operating a CMV.

Having the driver demonstrate shoulder joint mobility, arm and leg muscle strength required to enter and exit the cab, and other driver-related duties.

Having driver perform activity that demonstrates 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.

Instructing the CMV driver to maintain an upright, seated posture against resistance offered, in all directions, to demonstrate stability of trunk muscles.

# Musculoskeletal

- **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 certified, and, if so, for how long?**
- **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.**



# Musculoskeletal Case Study

Ms. O'Dell – Recertification Examination

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

Health History Comments

Cubital tunnel release in R elbow 4 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: Rt. Eye: 20/20 Lt. Eye: 20/20 Both: 20/20, Horizontal Field: Rt. Eye: 90° Lt. Eye: 90°

Hearing: Whisper test: Rt. Ear: 5 feet Lt. Ear: 5 feet

Blood Pressure/Pulse: BP-122/72 P-67 & Regular

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

Physical Examination Comments: 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.

# Musculoskeletal Case Study

- What is the certification decision in this scenario?
- 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.

# Musculoskeletal Case Study

- What is the certification decision in this scenario?
- 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.
- 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?
- 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.

# Musculoskeletal Case Study

- 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?
- 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

- 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:
- Disqualified from commercial driving until the driver has a federal diabetes exemption.
- What is the recommended certification interval for a driver with diabetes mellitus who does not use insulin?
- One Year
- Which diabetes mellitus risk poses the greatest threat to public safety?
- Hypoglycemia

# Diabetes Case Study

Medical Examination Report Form – Mr. Erik Peters – Recertification

Sex: Male | Age: 55 | Height: 70" | Weight: 225 lbs.

Health History: PCP 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 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, re-evaluation twice a year including HgbA1-c testing.

PCP medical records:

Last HgbA1-c (2 months old) was 7.2% (previous 7.3%).

No hypoglycemic episode history reported.

Continues with gradual weight loss over past two years.

No reported target organ effects/damage to date (with dilated eye examination by ophthalmology).

Compliance with periodic primary care physician re-evaluation, lab studies, and diet modification.

# Diabetes Case Study

Vision: Rt. Eye: 20/25 Lt. Eye: 20/20 Both: 20/20, field Rt. Eye: 80° Lt. Eye: 80°

Hearing: whisper test: R 5 feet, L 5 feet, Audiometric test hearing loss average: R N/A, L: N/A

Blood Pressure/Pulse: BP-134/80 P-86 & Regular

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

Comments: Driver with elevated body mass index (BMI), Obese abdomen

Rest of physical examination is unremarkable.

- What is the best determination outcome of this examination?
- Certify for one year. The historical and ancillary information appear congruent regarding his diabetes mellitus. His 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.

# Other Conditions

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



# Other Conditions

- What would the medical examiner do next if a significant abnormal finding for urinalysis specific gravity, protein, and blood is found?
- Medical examiners use their clinical expertise to determine if additional evaluation is required and request or recommend primary care provider follow-up.
- 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?
- 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.

# Other Conditions

- 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.
- 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.

# UA Case Study

Ms. Robinson – Recertification Examination

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

Health History: 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: R: 20/20, L: 20/20 Both: 20/20, Field of Vision: R: 90° L: 90°

Hearing: Whisper test: R: 5 feet L: 5 feet, Audiometric: R: N/A L: 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

Px Comments: Second day of menses with heavy bleeding. Nothing else notable.

# UA Case Study

- What is the best determination outcome of this examination?
- Meets standards in 49 CFR 391.41; qualifies for two years certificate. The underlying cause for abnormal findings were identified, not disqualifying, and presents no imminent individual or public safety risk.
- 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?
- 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.

# Case Study

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.

# Psych Case Study

Family history: His father has 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: R: 20/20 L: 20/20 Both: 20/20, Horizontal: R: 80° L 80°

Hearing: Audiometric test hearing loss average: R: N/A L: N/A

Blood Pressure/Pulse: BP – 132/81 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.

# Psych Case Study

What is the certification decision in this scenario?

- 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.
- 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.
- 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.
- Contacting the employer and explaining conditions of 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.

# Psych Case Study

Mr. Taylor – Certification Examination

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

Health History Comments: states that he “feels fine.” All responses on history are “N.” 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: R: 20/20 L: 20/20 both: 20/20, Horizontal: R: 90° L: 90°

Hearing: Whisper test: R: 5 feet L: 5 feet, Audiometric loss: R: N/A L: 31.6

Blood Pressure/Pulse: BP – 120/68 P – 96 & Regular

Urinalysis: SP. GR.: 10.020 | Protein: Neg | Blood: Neg | Glucose: Neg

Px 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.”



# Psych Case Study

- What is the certification decision in this scenario?
- Disqualify pending mental health and neurological examinations. The minimal physical examination was also not able to be completed, thereby resulting in disqualification.
- What findings and interactions combine to support the need for a psychological evaluation?
- 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.
- Is testing for controlled substances part of the requirement of the CMV driver physical examination?
- No. However, the medical examiner may require additional testing, including testing for controlled substances, if indicated.
- What is the Advisory Criteria for the “Drug Use” definition of “habit forming?”
- 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.

# Psych Conditions

- According to medical guidance, can a driver be certified while taking methadone for chronic pain management?
- Methadone is a habit-forming narcotic that can produce drug dependence. Methadone is not an allowable drug for CMV operators; see Question 3 under Physical qualifications and examinations on the Physical qualifications for driver's page.
- A driver checks "Yes" for "Regular, frequent alcohol use." The medical examiner should determine the:
  - Time pattern for alcohol use (e.g., every day). Quantity of alcohol ingested (e.g., six 12 oz. beers each weekend).
  - What concerns should a medical examiner have regarding a driver on multiple medications who reports regular, daily, moderate use of alcohol?
  - 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 effect.
- The medical examiner may require a driver to be evaluated by an SAP and successfully complete a rehabilitation course if the driver \_\_\_\_\_.
- Admits to alcohol or drug abuse.