NEUROLOGICAL AND RELATED MUSCULOSKELETAL CONDITIONS

Neurologic disorders have a significant impact on driving safety. A partial list would include: cerebrovascular disease, seizures, head injury, Parkinson's Disease, the various dementias and encephalopathies. Also included in a single miscellaneous category are the various musculoskeletal abnormalities which include muscular atrophies and dystrophies, myasthenia gravis, spinal cord disease, paraplegia, quadriplegia, and orthopedic deformities either congenital or acquired (such as arthritis or amputation). These musculoskeletal conditions have multiple etiologies, but the common need in most cases is adaptive driving equipment (hand controls, etc.) Multiple sclerosis, by virtue of its protean presentation, should be included under the profile which best describes its current functional impairment.

The common element in most of these is the disturbance of sensory, motor, cognitive, and/or coordinating functions sufficient to affect driving. Some of these, if stable, can be compatible with ability to operate a motor vehicle, if a driving test shows adequate performance in the type of vehicle to be driven. Other conditions, however, that have not yet stabilized or have a probability of progression or need for medication may require a medical report initially or at intervals.

Epilepsy includes any recurrent loss of consciousness or conscious control arising from intermittent change in the brain function. Other disorders, which also can affect consciousness or control, such as syncope, cataplexy, narcolepsy, hypoglycemia, episodic vertigo interfering with function or drop attacks, need also to be considered in a similar fashion.

In some neurologic disorders, there may be problems which fall into multiple categories. For example, a head injury may not only result in paralysis, but in visual field loss, impairment of learning and memory, and a seizure disorder. These should be addressed separately by the appropriate categories.

Because of society's increasing reliance on the automobile, limitations imposed upon the driving privilege of the elderly can significantly limit personal independence. While advancing age itself is not a predictor of individual driving ability, there are many conditions common in the elderly population which render the older operator more susceptible to vehicular accidents. Included among the age-related diagnoses are stroke, Parkinson's Disease, and dementia, particularly of the Alzheimer's variety. The diagnosis of an uncomplicated, stable dementia with memory impairment may not be sufficient cause to limit the driving privilege of an otherwise capable person. However, if complex reasoning skills are deficient, then such a driver presents a greater risk as evidenced by the fact that accidents in the older age group typically occur in complicated traffic patterns, intersections, lane changing, merging, left-hand turns, and emergencies. Unfortunately there is no adequate predriving test which can identify the competent driver with certainty. The road evaluation has been considered by some the "gold standard' to determine operating ability, but this only assesses routine functioning and cannot predict response to novel and emergency situations. Nevertheless, a road evaluation conducted by an experienced driver license examiner remains the best available measurement to assess operating skills including freedom from distractibility. If family, friends or medical personnel question the fitness of an older driver,

with or without the symptoms of dementia, then a road evaluation may be an appropriate measure either to limit the privilege for the incompetent individual or to recommend remedial training or adaptations for others so that their independence can be maintained within the bounds of public and personal safety.

FUNCTIONAL ABILITY PROFILE:
Miscellaneous Congenital or Acquired Anatomic/Musculoskeletal Chronic Conditions Interfering with Normal Mechanical/Motor Functions of Joints and Limbs[3]

Profile Levels	Circumstances*	Condition Example	Interval for Review
1.	No diagnosed condition	No known disorder.	
2.	Condition fully recovered & compensated	Past history of disorder which currently does not impair driving and requires no compensating personal[1] or non-standard accessory[2] devices.	N/A
3.	Active impairment: a. Minimal	a. Ongoing condition which currently does not impair driving and requires no compensating personal[1] or non standard accessory[2] devices.	a. 4 years
	b. Mild	b. Same as (a), but requires compensating personal[1] or non-standard accessory [2] devices. **ROAD EVALUATION REQUIRED**	b. 4 years
	c. Moderate	c. Ongoing condition which interferes with safe driving despite devices, but with potential for recovery.	c. No driving
	d. Severe	d. Same as (c), no potential for recovery.	d. No driving
4.	Condition under investigation	Newly discovered abnormality or condition.	As needed

[1]. Prosthesis, brace, etc.
[2]. Hand controls
[3]. Driving may need to be temporarily prohibited due to an immobilizing cast, neck brace, etc., if it impedes safe operation of a motor vehicle

* For further explanation refer to page 1

FUNCTIONAL ABILITY PROFILE: Neurological Conditions
Dementia/Encephalopathies

Profile Levels	Circumstances*	Condition Example	Interval for Review
1.	No diagnosed condition	No known disorder.	
2.	Condition fully recovered & compensated	Dementias or encephalopathies recovered	N/A
3.	Active impairment: a. Minimal	a. Diagnosed mild nonrapidly progressive Dementia/Encephalopathy. **REQUIRES ROAD EVALUATION EVERY 2 YEARS**	a. 2 years
	b. Mild	b. Same as (a). More severe. Safe to drive limited distances. **ROAD EVALUATION REQUIRED**	b. 1 year
	c. Moderate	c. Dementia or encephalopathy interfering with driving at present or with poor compliance with potential for recovery.	c. No driving
	d. Severe	d. Non-treatable dementia	d. No driving
4.	Condition under investigation	Newly diagnosed disturbance of higher integrative functions	As needed

* For further explanation refer to page 1

FUNCTIONAL ABILITY PROFILE: Neurological Conditions
Parkinson's Disease/Syndrome

Profile Levels	Circumstances*	Condition Example	Interval for Review
1.	No diagnosed condition	No known disorder.	
2.	Past impairment fully recovered & compensated	History of drug induced Parkinsosnian Syndrome, now recovered	N/A
3.	Active impairment:		
	a. Minimal	a. Mild unilateral Parkinson's Disease controlled with medication. **ROAD EVALUATION REQUIRED**	a. 4 years
	b. Mild	b. Bilateral Parkinson's Disease/Syndrome, moderate severity with signs of progression but still functionally capable of driving with medication. **ROAD EVALUATION REQUIRED**	b. 1 year
	c. Moderate	c. Bilateral Parkinson's Disease/Syndrome, the symptoms of which preclude driving at present but may improve with medication adjustment	c. No driving
	d. Severe	d. Advanced Parkinson's Disease, the severity of which precludes driving.	d. No driving
4.	Condition under investigation	Recently discovered Parkinson's Disease/Syndrome	

* For further explanation refer to page 1

FUNCTIONAL ABILITY PROFILE: Neurological Conditions

Seizures[1] and Unexplained Episodic Alterations of Consciousness[2]

Profile Levels	Circumstances*	Condition Example	Interval for Review
1.	No diagnosed condition	No known disorder.	
2.	Condition fully recovered & compensated	Previous history of any seizure, but seizure free and off medication at least 2 years.	
3.	Active impairment: a. Minimal	a. Seizure free at least 2 years, and off medication>3 months[3], Long standing (> 5 years) seizure disorder, on medications, seizure free at least 3 months.	a. 4 years
	b. Mild	b. All other seizure disorders not covered in (a), on medications and seizure free for at least 3 months[4]	b. 2 years
	c. Moderate	c. Seizures not yet controlled or medications not adjusted	c. No driving
	d. Severe	d. 1. Uncontrollable seizure disorder. 2. Chronic noncompliance. 3. Medications which interfere with driving.	d. No driving
4.	Condition under investigation	Newly discovered seizure disorder	As needed

[1] Seizure disorder having more than one episode not explained by chemical/metabolic phenomenon. Seizures related to chemical abuse fall under this profile.

[2] Any unexplained episodic alterations of consciousness including a single seizure episode, no driving is permitted for 6 months.

[3] If medication is being tapered, no driving is permitted until 3 months after medications have been discontinued.

[4] Breakthrough seizures in a known seizure disorder due to reduction in medication are not subject to the 3 month rule.

Interfering with Normal Mechanical/Motor Functions of Joints and Limbs[3]

* For further explanation refer to page