



Occupational Therapy Pre-Driving Screening Practice Guidelines

Newfoundland and Labrador Association of Occupational
Therapists Driving Working Group

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Introduction/Purpose

The purpose of this document is to provide an evidence-informed educational resource and practice guideline for occupational therapists of Newfoundland and Labrador who are requested to evaluate a person's fitness to drive a Class 5 vehicle. It is not intended to be prescriptive, and therefore, it is imperative that the therapist: be informed of and utilize current evidence, legislation, and policies specific to the clinician's practice area; use a solid clinical reasoning process; practice in an ethical manner; utilize professional judgement throughout the assessment; consult with the team/client/family/other occupational therapists when necessary; gather appropriate information; and consider each client's individuality, unique situation, and environment.

Occupational therapists across Newfoundland and Labrador are increasingly receiving requests for evaluation of driving skills. The Canadian Association of Occupational Therapists released the Position Statement, *Occupational Therapy and Driver Rehabilitation* (2009), in which it stated "all registered occupational therapists in Canada should have the knowledge and skills to deliver some driver evaluation rehabilitation services". It goes on to endorse a three-tier expertise framework comprising generalist health professional training, advanced occupational therapy training, and advance-specialist occupational therapy training.

The Alberta Health Services Provincial Occupational Therapy Driving Working Group developed an algorithm outlining the occupational therapy process for driving entitled, *Occupational Therapy Practice Guide for Enabling Participation in Driving, 2nd Edition* (2017). This document further delineated the second tier to occupational therapists who provide only clinical evaluations (Tier 2a) and those that provide comprehensive driving evaluations (Tier 2b/Tier 3).

Using these documents as frameworks, the Newfoundland and Labrador Association of Occupational Therapists (NLAOT) Driving Working Group developed the "Occupational Therapy Algorithm for Enabling Participation in Driving in Newfoundland and Labrador" (Appendix A) for evaluating fitness to drive in the province.

The NLAOT Pre-Driving Screening Practice Guidelines document is comprised of guidelines for potential areas of client assessment. Areas assessed are at the discretion of the occupational therapist based on clinical reasoning, level of expertise in driving evaluation, and client needs.

Occupational Therapy Role Defined

In the province of Newfoundland and Labrador, there is an understanding that occupational therapists are ideally suited to provide expertise in driver screening, assessment and intervention.

All registered occupational therapists in Newfoundland and Labrador should have the knowledge and skills to deliver some driver evaluation and rehabilitation services. This has been developed into a three-tier model and algorithm (Appendix A), based on the Algorithm for AHS Occupational Therapy Process for Enabling Participation in Driving (AHS Provincial Occupational Therapy Driving Working Group, 2017, pp. 6-7, 9):

TIER 1 - GENERALIST:

- The Tier 1 occupational therapist is able to explore the client's goals related to driving; helping to determine if it is a valued occupation. They understand that driving requires high level cognitive, perceptual, physical, and sensory skills.
- They have the ability to provide information on driving with specific medical conditions and age-related changes.
- They are in a position to guide discussions around options for community mobility, skill development for the novice driver, and planning for driving cessation.
- They can complete screenings with potential recommendations for further assessment and/or intervention, which may include referral to Tier 2 or 3 occupational therapists.

TIER 2 - ADVANCED:

- At the Tier 2a level, occupational therapists administer clinical evaluations using both standardized and non-standardized assessments. The occupational therapist determines strengths and challenges for driving which may require further intervention or assessment.
- At the Tier 2b level, occupational therapists complete a comprehensive driving evaluation that consists of clinical and on-road evaluation and may include provision of basic adaptive equipment (e.g., spinner knob, signal extender, adapted mirrors, hand controls, etc.). The on-road evaluation assesses driver performance along a set route and is typically completed in a dual brake vehicle with a certified driving instructor and the occupational therapist.

TIER 3 - ADVANCED-SPECIALIST:

- At this level, the occupational therapist completes a comprehensive driving evaluation and has specialized expertise in vehicle modifications and use of assistive technology for driving (e.g., electronic gas/brake, reduced effort steering, technical vehicle modifications).
- Generally, this is completed outside of the province of Newfoundland Labrador.
- Collaboration likely to occur between Tier 2A or Tier 2B advanced level occupational therapists.

Legislation/Regulations

The provincial licensing authority is ultimately responsible for determining fitness to drive and is the only entity that has the authority to issue, suspend, or revoke driving privileges. In Newfoundland and Labrador, this authority falls under the Registrar of Motor Vehicle Registration, Division of Work Skills and Transportation (MRD). The Highway Traffic Act has mandatory reporting legislation as summarized below:

- Physicians, ophthalmologists, opticians, and nurse practitioners licensed in Newfoundland and Labrador are required to report anyone who has a medical condition that may impact driving ability.
- Police officers submit a mandatory report if they have concerns about a driver's suitability to operate a motor vehicle.
- Drivers have an obligation to self-report any such conditions when renewing their driver's license. Members of the general public may report any drivers that they believe need to be investigated.

Occupational therapy role in determining driver fitness:

- At present, occupational therapists in Newfoundland and Labrador are not included in the legislation for mandatory reporting. As client-centred, self-regulated professionals, occupational therapists may initiate driving discussions, screening, or assessments with any client who identifies driving as a valued occupation and/or there is reason to explore the clients' abilities. This interaction may be focused on community mobility, health promotion, or injury prevention. However, in some situations, safety concerns arise and result in the need to involve licensing authorities or to discuss driving cessation.

There are medical requirements for age for licensing. For a Class 5 license, the first mandatory medical is at age 75, then again at age 80, and every 2 years thereafter.

The Canadian Council of Motor Transport Administrators (CCMTA) publishes a model for determining driver fitness, as well as medical standards, that closely align with the Canadian Medical Association (CMA) guidelines which are utilized by physicians. To ensure medical eligibility of licensure, the province of Newfoundland and Labrador has adopted these medical standards.

The CCMTA model supports the use of both medical and functional assessments and divides impairments into the following categories:

- Transient impairments: Temporary with little likelihood of recurrence. Examples include: fractures, use of brace or cast, infection, or after effect of surgery. These impairments do not need to be reported and do not require a driving assessment. Typically, physicians can make recommendations for these impairments based on CMA guidelines.
- Episodic impairments: Unpredictable, sudden, or intermittent impairments that may not have ongoing observable, testable, or measurable impact and therefore cannot be measured functionally. Examples include: seizure disorder, aortic aneurysm, psychosis, or narcolepsy. Recommendations may be based on medical assessments.
- Persistent impairments: Ongoing or continuous functional impairment that is measurable, testable, and observable. The impairment may be stable or progressive but does not result in a sudden deterioration. Recommendations may be based on medical and functional impairments.

The CCMTA acknowledges that individuals may have more than one type of impairment, or an impairment that progresses from transient to persistent, or a persistent impairment with periodic acute episodes. Compensation with strategies or devices may be possible for motor or visual impairments. However, progressive or irreversible decline in cognitive function cannot be compensated for, and driving cessation is imminent.

Links:

- Highway Traffic Act (Section 174.1)
<https://www.assembly.nl.ca/legislation/sr/statutes/h03.htm>
- Mandatory Reporting*
<https://www.gov.nl.ca/motorregistration/existing-drivers/driver-records-and-suspended-drivers/medical-standards-and-mandatory-reporting/>

Related documents include:

- CCMTA Medical Standards for Drivers – March 2017
- Determining Medical Fitness to Operate Motor Vehicles, CMA Driver's Guide, Edition 9.1 (2019)

<https://joulecma.ca/evidence/CMA-drivers-guide>

(May require physician to purchase or download.)

*Sample Mandatory Reporting Form in Appendix B

Assessment Planning

- Environment (Is the environment appropriate for screening?)
- Length of session (e.g., inform client of time requirements)
- Is client attending alone? Is family needed to observe, provide reassurance, and/or discuss results?
- Gather materials appropriate for the client (i.e., age/education level norm-based assessments).
- At end of session, provide summary sheet with recommendations (samples in Appendix C and D, pending Occupational Therapy service).

Informed Consent

- Client consent is an ongoing process that occurs throughout all interactions and can be withdrawn at any point. The occupational therapist must discuss the purpose, benefits, risks, and outcomes of the driving screening, assessment, intervention, and recommendations.

- Consent is required to disclose information outside the circle of care, such as to the Medical Section of MRD. Refer to your regional health authority's Consent for Release of Information form.
- If the occupational therapist identifies significant concerns for the client's fitness to drive but the client does not provide consent, then the occupational therapist should document their concerns on the client's medical file and inform the appropriate healthcare provider (e.g., attending physician, general practitioner, or nurse practitioner) within the client's circle of care.

Interview/Observations

- Reason for Referral
- Diagnosis/Co-morbidities/Medications
- Current Functional Status
 - ADLs/IADLs
 - Mobility/transfers
 - Communication
 - Education Level/Work History
- License Status (e.g., suspended, restricted, etc.)
 - Class of license (*Occupational therapists can only make recommendations to MRD re: Class 5 licensing)
- Driving Goals
- Driving Profile
 - When did the client last drive?
 - Years of experience
 - Driving routine (frequency, routes)
 - Recent fender benders or accidents in the last 2 years?
 - Restrictions (MRD restrictions vs. self-restrictions such as client avoiding driving at night because headlights are too bright).
 - Type of vehicle
 - Current method of transportation

- Family concerns reported (Ask spouse/family member regarding any changes in driving habits or skills. Ask would they feel comfortable with this person driving their children/grandchildren?)
- Initial impressions:
 - General appearance
 - Level of alertness/cognitive-perceptual status (“secretary test” – was the client able to set up the appointment? Did they bring requested information/documents? Did they show up on correct date/time?)
 - Global psychomotor abilities/fluidity of movements
 - State of car and home, if applicable
 - Parking, if observed

Vision & Hearing Screening

Minimum visual requirements for Class 5:

- ❖ binocular acuity of 20/50 Snellen Fraction
- ❖ binocular horizontal visual field of 120° continuous

No hearing standard for Class 5 but extra mirrors may be indicated if hearing is reduced.

- Vision History/Concerns
 - Date of last formal vision assessment?
 - Is an update needed post-medical event?
 - See Appendix E for sample letter to optometrist.
 - Are corrective lenses a driving restriction?
 - Are there previous vision problems? (e.g., macular degeneration, diabetic retinopathy, previous visual field cut, etc.)
 - Are there new onset vision problems? (e.g., diplopia, visual field loss, etc.)
- Acuity
 - binocular (biVABA Intermediate Acuity Test Chart, Snellen chart)
- Visual Fields
 - Confrontation Testing
 - Horizontal Vision Disc
 - biVABA Kinetic Two Person Confrontation Test

- Visual Attention
 - Cancellation Sheets (Bell's Test of Visual Neglect, Line Bisection Test, H Cancellation Test from OSOT)
 - Useful Field of View Test of Visual Attention

- Oculomotor
 - Smooth pursuits/Tracking
 - Saccades

- Hearing
 - functional/impaired
 - hearing device

Physical/Psychomotor Screening

Functional ROM and strength of both upper extremities are required to reach and manipulate the steering wheel, signal lights and gear shifter.

Functional ROM and strength of the lower extremities are required to reach and activate the accelerator and brake pedals.

Functional ROM and strength of the neck and trunk are required to shoulder check to identify hazards at the side of the vehicle. Sitting balance is required, including the ability to maintain and regain center of gravity against inertia.

Safe driving requires the ability to make smooth, accurate, controlled movements of the hands, arms, feet and legs in order to operate pedals, steering wheel and secondary controls. Most of these movements need to be coordinated with little or no visual feedback.

For upper extremity deficits, modifications may be required for full steering control and secondary control access. For right or bilateral deficits of the lower extremities, adaptive equipment may be required. Determination of need should be made by an occupational therapist. Recommendations must be forwarded to MRD for licensing decisions/restrictions or road test as indicated. Referral to Dr. Leonard A. Miller Centre (LAMC) Driving Assessment Services may be appropriate.

NOTE: No single assessment or screening tool can be used in isolation to determine a client's fitness to drive. The following list of screening tools/assessments are for the therapist's consideration based on their own expertise and client needs.

- Upper Extremity
 - AROM of hands, arms, and shoulders
 - Strength
 - Functional grip strength (e.g., client squeezing 2-3 fingers of therapist and sustaining it)
 - Jamar dynamometer (~10 kg preferred but no norms specific to driving)
 - Manual muscle testing (not norm specific, but throughout upper extremities less than 4 is cause for concern)
 - Proprioception (e.g., OSOT Perceptual Evaluation Test 16)
 - Coordination
 - Finger-nose eye level (x10 as fast as can – McGill Screening Driver Safety course)
 - Finger-nose above head (x10 as fast as can – McGill Screening Driver Safety course)
 - Dysdiadochokinesia Test/alternating movements (RAM)
 - Sensation
 - Light touch
 - Does this affect the person's ability to drive and manipulate controls? Upper extremity sensation impairment may be compensated for by vision.

- Lower Extremity
 - AROM of ankles, knees, and hips (Is foot drop present? Use of AFO?)
 - Strength (not norm specific but >20 lbs. ankle strength preferred; manual muscle testing)
 - Proprioception (right ankle, shoe on)
 - Coordination (*Observe ability, quality, and speed of movement)
 - Right heel pivot test
 - Right foot pivots side to side maintaining heel on the floor with forefoot tapping 15 times total in less than 9 seconds (8 to the right side, 7 to the left)

- From Occupational Therapy – Driver Off-Road Assessment Battery (OT DORA) as per McGill Screening Driver Safety course.
 - Alternating foot tap
 - Using 2 marks spaced 6” apart on the floor, client taps forefoot from one mark to the other as quickly and accurately as possible. Movement may be pivoted from the heel or lifting full foot.
 - Therapist counts the number of toe taps in 10s. Observe accuracy, fluidity, and quality of movement, noting any irregularities. Not norm specific but 20+ taps is preferred. Can also be used as therapy/intervention in clinic or home program.
 - Brake Reaction Time Tester (RT-2S) – LAMC has (~\$175 to purchase; can be used for intervention as well) <https://atpwork.com/retime.html>
 - Sensation (right foot)
 - Light touch (ball of foot, plantar surface)
- Neck and Trunk
 - AROM of neck and trunk
 - Bilateral shoulder check
 - 60° neck rotation preferred; may compensate with trunk rotation
 - Sitting balance
 - Static
 - Dynamic (reaching outside base of support with arms)
 - External displacement (client sitting on edge of plinth and righting reactions tested – i.e. lightly pushing client off balance).

Cognitive/Perceptual Screening

Safe driving requires the ability to search the environment, identify hazards, predict possible outcomes, and adjust driving performance to maneuver a vehicle on the roadway and avoid collisions. Cognitive/perceptual abilities for safe driving include but are not limited to:

- ❖ The ability to sustain attention to task over an extended period of time; to selectively attend to relevant stimuli (e.g., traffic light), while ignoring irrelevant environmental stimuli (e.g., fire hydrant); and to divide attention

between multiple stimuli (e.g., roadway ahead while monitoring traffic in the periphery).

- ❖ The ability to register, recall, and manipulate information about signage, traffic rules, and various environmental information, such as when driving on a busy freeway or coming to a busy four way stop.
- ❖ The ability to rapidly process and understand visuospatial information.
- ❖ Problem solving and planning to be able to make quick decisions on environmental situations and plan one's route (e.g., detour).

Cognition/perceptual concerns:

- Are there new onset cognitive problems?
- Are there new onset perceptual problems? (e.g., neglect/inattention)

NOTE: No single assessment or screening tool can be used in isolation to determine a client's fitness to drive. The following list of screening tools/assessments are for the therapist's consideration based on their own expertise and client needs.

- Awareness, Judgement, and Insight.
 - A client's driving style, habits, and insight into deficits can impact ability to compensate for any identified concerns.
 - See sample questions below that may be included in initial interview (McGill Screening Driver Safety course). Ensure these are put into the context of the client's routine driving practices:
 - Do you think your illness/situation has affected your driving in any way?
 - You are driving along a 3-lane roadway. You notice that your lane has become a turning lane only for those wishing to turn right at the next intersection. You wish to go straight. What should you do?
 - Can you name three things that you need to be careful of when you are driving in a parking lot?
 - If you were driving along the highway and got a flat tire, what would you do?

- You have an appointment with your neurologist who has moved to a new location. You are unfamiliar with the area and only have his address. How would you get there?
- Paper & Pencil Tasks (Links available in Resources section)
 - *Be mindful of test/retest timeframes and age-related norms
 - Mini Mental Status Exam (MMSE) or Montreal Cognitive Assessment (MoCA)
 - Expanded version of MMSE available.
 - Certification required for MoCA.
 - MoCA has higher predictive value for driving than MMSE.
 - Clock Drawing Test
 - Trail Making A & B Tests
 - CAM Maze or Snellgrove Maze
 - Bell's Test
 - biVABA Visual Attention Tests (Search Strategies for Near Space)
 - Structured Visual Array
 - Single Letter Search – Simple
 - Single Letter Search – Crowded
 - Word Search
 - Structured Complex Circles Search
 - Unstructured Visual Array
 - Random Plain Circles – Simple
 - Random Plain Circles – Crowded
 - Random Complex Circles Search
 - Line Bisection Test
 - Motor-Free Visual Perception Test (MVPT)
 - OSOT Perceptual Evaluation Motor Planning Test (Test 3)

Tools Often Used in Evaluation of Fitness to Drive

The following tools often used in evaluation of fitness to drive are usually only administered by occupational therapists in Tiers 2A and/or B in Newfoundland and Labrador (Links available in Resources section).

- Useful Field of View Assessment (UFOV)
 - 30-minute online test
 - Can be completed on any Internet-connected computer.
 - Purpose is to determine the size of the test-taker's useful field of view, which can also be defined in terms of visual processing speed.
 - Good predictor of automotive crash risk
 - LAMC has older computer program (not online)
 - Online version has fee for use

- Self-Assessment Tools
 - Driving and Dementia Toolkit (for Patients and Caregivers)
 - Fitness to Drive Screening Measure (FTDS)
 - Many self-assessment tools available on-line that clients/families can complete on their own (e.g., CARP, AARP)

- Batteries of Tests for Health Care Professionals
 - Clinical Assessment of Driving Related Skills (CADReS, formerly ADReS)
 - The Driving and Dementia Toolkit
 - Occupational Therapy – Driver Off-Road Assessment Battery (OT-DORA)

- Remediation Tools for Clients
 - Many apps/websites available on-line that clients can use to work on driving skills:
 - Drive Focus
 - Cognifit
 - Cognifit/Young Drivers
 - Lumosity

Analysis

As stated throughout this document, no single assessment or screening tool can be used in isolation to determine a client's fitness to drive. In addition to test scores on the screening tools, you must consider how the client performed throughout the screening process:

- Was anxiety evident? Did the client require reassurance?
- How was their level of engagement/disengagement?
- Was vision and hearing adequate?
- Did they need cueing throughout? Could they retain instructions?

Other things to consider:

- Education level and work history.
- Functional status for ADLs and IADLs.
- Level of insight into deficits and its impact on driving. Clients with limited insight tend to have difficulty adapting and/or restricting their driving when necessary.
- Reported family concerns.

Recommendations

Client consent is required when sharing occupational therapy assessment results with MRD or when referring to LAMC Driving Assessment Services for comprehensive driving evaluation.

Inform client that MRD makes all final decisions regarding driving.

Recommendations for return to driving may vary pending the practice setting and expertise of the assessing occupational therapist.

The following are potential occupational therapy recommendations derived from the NLAOT Occupational Therapy Algorithm for Enabling Participation in Driving in Newfoundland and Labrador (Appendix A):

Tier 1 – OT Generalist

- Based on occupational therapy assessment, no cognitive/perceptual or physical/psychomotor issues identified for return to driving. Client may require medical follow-up (e.g., GP, ophthalmologist, other specialist, etc.).

- Recommend license suspension to the team with occupational therapy follow-up referral to Tier 2A or Tier 2B OT as deemed appropriate.

Tier 2 – Advanced OT

Tier 2A (Advanced OT: Clinical Evaluation)

- Based on occupational therapy assessment, no cognitive/perceptual or physical/psychomotor issues identified for return to driving. Client may require medical follow-up (e.g., GP, ophthalmologist, other specialist, etc.).
- Based on occupational therapy assessment, client requires an on-road test with MRD.
- Client requires cognitive/perceptual/physical remediation prior to completing or re-evaluating pre-driving screening assessment.
- Client is referred to Tier 2B OT for full comprehensive driving evaluation.

Tier 2B (Advanced OT: Comprehensive Driving Evaluation)

- Based on occupational therapy assessment, no functional issues identified for return to driving. Client may require further medical follow-up (e.g., ophthalmologist, other specialist, etc.).
- Client is referred to Tier 2A OT for cognitive/perceptual/physical remediation prior to re-assessment. Client may or may not be referred back to Tier 2B OT pending outcome of remediation.
- Completion of a structured driver's training program, for which the Tier 2B therapist outlines specific client goals/needs, with additional re-evaluation upon completion of training and prior to recommendations to MRD.
- Based on comprehensive driving assessment, suspension of license or continued suspension is recommended.
- Recommendations for adaptive driving aids or equipment (e.g., spinner knob, left foot accelerator, etc.).
- Recommendations for vehicle modifications.
- Referral to/consult with Tier 3 OT for assessment.

Tier 3 – Advanced Specialist OT

- Located out of province.
- Makes recommendations for clients with complex needs +/- specialized technology. Typically includes consultation with Tier 2B OT for pre-driving fitness, preparation for specialized assessment, and feasibility.

Driving recommendations should be forwarded to MRD via the following:

- Mailing address: PO Box 8777
St. John's, NL
A1B 3T2
*Attention Medical Section
- Fax number: 709-729-4360
- Email via secure email: MRDmedicalsgov.nl.ca
 - The occupational therapist should ask MRD for a confirmation email to verify receipt of the attached document.
 - **This e-mail address is for occupational therapy correspondence only.**

Provide client with written summary of recommendations (Sample Summary of Recommendations in Appendix D).

Client Support

Occupational therapists have a responsibility to offer support to clients and their families/caregivers when driving cessation is recommended.

- Prepare and counsel
 - Occupational therapists should recognize that driving cessation is a difficult transition that can have a significant impact on the client's community mobility, sense of self, and family dynamics.
 - Ideally, conversations should begin well before driving needs to stop.
 - Therapists should expect that clients and family/caregivers may be resistant to this change, especially if insight is reduced.
 - Clients may have specific preferences of who they want to discuss driving retirement with.

- Be open and honest about occupational therapy role and obligation to protect public safety.
- Be transparent about recommendations and recognize the loss for client.
- Educate
 - Provide educational resources to family on the potential effects of driving cessation:
 - Refer to appropriate disciplines as needed (e.g., social work, psychology)
 - Peer support
 - Educate on how to use public transportation.
 - Utilize clients' skills and resources. Involving them in the planning process gives them independence and self-worth.
- Assess transportation needs
 - Make an alternate transportation plan:
 - Develop a schedule of where the person needs to go (e.g., social, medical, bank, groceries, post office, etc.).
 - Determine when and how they are now going to travel.
 - Research local resources for alternative transportation solutions:
 - Public transportation options (e.g., bus, taxi, etc.)
 - Grocery and medication delivery
 - Local organizations (e.g., Lion's Club, Red Cross)
 - Informal supports (e.g., neighbours, friends, church groups)
 - Compare the cost of owning a car to paying for alternative transportation options (https://s0.hfdstatic.com/sites/the_hartford/files/we-need-to-talk.pdf, page 19).

For more details, please contact the Medical Section of Motor Registration Division at 709-729-0345 or Toll Free at 1-877-636-6867, as stated on client's letters from MRD.

Resources

Medications and Driving

- www.drugs.com/drug-interactions.html
- <https://exchange.aaa.com/safety/substance-impaired-driving/>
- <https://ccmta.ca/en/road-safety>

Vision

- biVABA (Brain Injury Visual Assessment Battery for Adults)
<https://www.visabilities.com/bivaba.html>

Cognitive/Perceptual Screening Tests

- Mini Mental Status Exam (MMSE)
<https://www.parinc.com/Products/Pkey/237>
- Montreal Cognitive Assessment (MoCA)
<https://www.mocatest.org>
- Clock Drawing Test
<https://strokenine.ca/en/assessments/clock-drawing-test-cdt/>
- Trail Making A & B Tests
<https://strokenine.ca/en/assessments/trail-making-test-tmt/>
- CAM Maze
<https://www.pearsonclinical.ca/en/products/product-master.html/item-378>
- Snellgrove Maze Test
<http://safemobilityfl.com/pdfs/CliniciansGuide/SnellgroveMazeTest4thEdition.pdf>
- Bell's Test
<https://strokenine.ca/en/assessments/bells-test/>
- biVABA Visual Attention Tests (Search Strategies for Near Space)
<https://www.visabilities.com/bivaba.html>
- Line Bisection Test
<https://strokenine.ca/en/assessments/line-bisection-test/>

- Motor-Free Visual Perception Test (MVPT)
<https://www.therapro.com/Motor-Free-Visual-Perception-Test-4-MVPT-4.html>
<https://strokengine.ca/en/assessments/motor-free-visual-perception-test-mvpt/>
- OSOT Perceptual Evaluation Motor Planning Test
<https://strokengine.ca/en/assessments/ontario-society-of-occupational-therapists-osot-perceptual-evaluation/>

Tools Often Used in Evaluation of Fitness to Drive

- Useful Field of View
<https://www.brainhq.com/partners/specialized-products-driving-safety/ufov/>
- Driving and Dementia Toolkit
<https://www.rgpeo.com/wp-content/uploads/2020/04/Driving-and-Dementia-Toolkit-3rd-Ed-pdf-July-2009.pdf>
- Fitness to Drive Screening Measure
[Fitness-to-Drive Screening Measure \(ufl.edu\)](https://www.ufl.edu/~cfranklin/fitness-to-drive-screening-measure/)
- Canadian Association of Retired Persons (CARP)
<https://www.carp.ca/>
- AARP Driving Resource Centre
<http://www.aarp.org/home-family/getting-around/driving-resource-center/driver-resources/>
- Clinical Assessment of Driving Related Skills (CADReS, formerly ADReS)
<https://geriatricscareonline.org/ProductAbstract/clinicians-guide-to-assessing-and-counseling-older-drivers-4th-edition/B047>

Free download (please ensure most recent edition):

<http://safemobilityfl.com/pdfs/CliniciansGuide/CliniciansGuideOlderDriversComplete4thEdition.pdf>

- Occupational Therapy – Driver Off-Road Assessment Battery (OT-DORA)
[OT-DORA: Occupational Therapy Driver Off-Road Assessment Battery \(aota.org\)](https://www.aota.org/OT-DORA-Occupational-Therapy-Driver-Off-Road-Assessment-Battery)
- Drive Focus App
<https://drivefocus.com/>
- Cognifit (~\$40 per month)
<https://www.cognifit.com/>

- Cognifit - Young Drivers (~\$20 per year)
<https://yd.com/cognifit>
- Lumosity (~\$100+ per year)
<https://www.lumosity.com/en/>

Referral to a Certified Driving Rehabilitation Specialist (CDRS) or a specialized Driving Program in a Rehabilitation Centre

- Association of Driver Rehabilitation Specialists: ADED (See Directory & Services Tab for a list of CDRS found globally)
<https://www.aded.net>
- CAOT Driving Resource page
<https://www.caot.ca/site/aboutot/driving?nav=sidebar>

Client Support

- The Driving and Dementia Toolkit
<https://alzheimer.ca/sites/default/files/documents/DrivingDementiaToolkit.pdf>
- We Need to Talk and At the Crossroads
<https://www.thehartford.com/resources/mature-market-excellence/publications-on-aging>
- CAOT Driving Safely as You Age brochures:
<https://www.caot.ca/site/aboutot/driving?nav=sidebar>
- Alzheimer's Association: Dementia and Driving
<https://www.alz.org/help-support/caregiving/safety/dementia-driving>
- National Highway Safety Administration (US Department of Transportation) – information and videos on medical conditions in older drivers
<https://www.nhtsa.gov/road-safety/older-drivers>

General Resources for Vehicle Modifications

- National Mobility Equipment Dealers Association (NMEDA)
<https://nmeda.org/>
- University of Michigan Wheelchair Transportation Safety
<https://wc-transportation-safety.umtri.umich.edu>

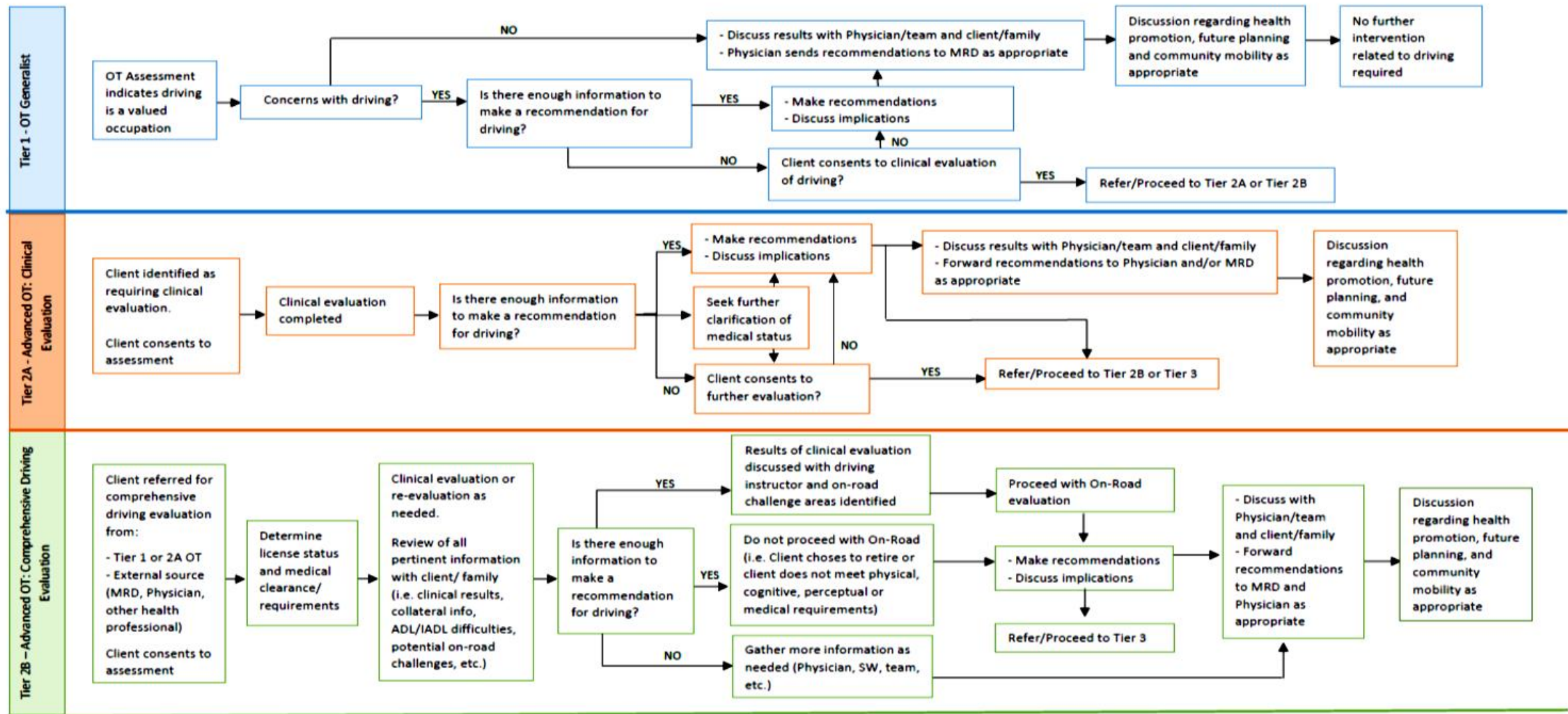
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Appendix A

Occupational Therapy Algorithm for Enabling Participation in Driving in Newfoundland and Labrador

Occupational Therapy Algorithm for Enabling Participation in Driving in Newfoundland and Labrador



**Tier 3 – Advanced Specialist OT: Comprehensive Driving Evaluation → Located out of Province

Updated: September 11, 2020

Appendix B

Sample Driving Mandatory Report Form



Driving Mandatory Report Form

Date: _____

This person has a medical condition that may impact their ability to drive.

Name: _____

Address: _____

MCP: _____ Date of Birth (D/M/Y): _____

Medical information / relevant history/ concerns identified: _____

Recommendations to Motor Registration Division (MRD):

Suspend License Yes No

Road test with MRD

Medical follow up from family physician (Name if available) _____

Medical follow up from specialist _____

OT Pre-driving screen. (Clinical screen only) Outpatient L.A.M.C contact 777-7885
Referral sent Yes No Other location _____

Requires full OT Driving Assessment (clinical plus road test, fee for service)
contact 777-6560 Referral sent Yes No

Please forward further correspondence to:

Family Physician _____ (must provide name)

Health Records

Reporting Physician

Signed

Please print

Please forward to
Medical Review officer, P.O. Box 8777, St. John's, NL , A1B 3T2,
Fax (709)729 - 4360, email: MRDSecure@gov.nl.ca

Sept 19

Appendix C

Sample Information on Driving After a Medical Event

Information on Driving After a Medical Event

In Newfoundland and Labrador, doctors are required by law to report any medical condition that may affect driving safety (*Highway Traffic Act Section 174.1*)

This may result in your driver's license being suspended for a period of time. If this happens you will get a certified letter from Motor Vehicle Registration to ask you to return your license. They will also tell you what you need to do to return to driving.

To determine if you are able to safely return to driving after your medical problem, your medical team may refer you for a:

_____ **Pre-Driving Screen.** This is completed by an Occupational Therapist and will include testing of your vision, strength, movement, reaction time, memory and attention. A road test may be completed by MVR, or you may need to have a full driving evaluation. If you are referred, you will be contacted by phone to book an appointment. If you have any questions you may contact *(insert OT service, telephone #)*.

_____ **Driving Evaluation.** This is completed by an Occupational Therapist who specializes in driving evaluation and rehabilitation. It includes a clinical and a behind the wheel evaluation. If you are referred, you will be sent more information in the mail and you will be contacted by phone to book your appointment. If your license is suspended, medical clearance will be needed before the behind the wheel evaluation can be completed. This service is not covered under MCP and there is a fee for testing. If you have any questions please call (709) 777-6560.

This is NOT a referral

Appendix D

Sample Summary of Recommendations

**Summary of Potential Recommendations by Occupational Therapist upon
Completion of Pre-Driving Screening Assessment:**

Assessment Date: _____

Client name: _____

MCP: _____

Persons in attendance: _____

Recommendations as discussed with client on date above include:

OT pre-driving screening assessment indicates no functional issues for return to driving. MRD to provide final recommendation for return to driving.

Road test with Motor Registration Division.

Repeat pre-driving screening assessment in _____ (time frame).

Cognitive remediation with Occupational Therapist with repeat pre-driving screening assessment as indicated.

Referral to Driving Assessment Services Occupational Therapist for full assessment.

Medical clearance recommended (e.g. Family Doctor, Ophthalmology, Neurology, etc.)

Cessation of driving is recommended.

Client was advised that final decisions are made by MRD and cannot resume driving until authorized by MRD.

Occupational Therapist

Appendix E

Sample Letter to Optometrist

Date:

RE:
DOB:
HCN:

To Whom It May Concern:

_____ has been referred to (*occupational therapy service*) for a Pre-Driver Screening Assessment.

In order to complete the cognitive/visual/perceptual components of this assessment, I require more information on his/her vision. If the client requires new corrective lenses, he/she will need to be wearing them for my assessment.

Could you please perform the following visual examinations during his/her next visit and provide the results below:

1. Visual Acuity: _____
2. Binocular Visual Field: _____

Thank you for your assistance in this matter.

Sincerely,

Occupational Therapist
(*occupational therapy service/site*)
(*telephone #*)

Appendix F

Driving Working Group Members

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