

Top 10 News From the World of Driver Rehabilitation

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Introduction

- Driving is complex
- There has been recent interest in the field of Driver Rehabilitation.
- There have been several changes in the industry: new technologies for driving, screening tools, and changes in legislation.
- Purpose of this presentation: to discuss some of the most important recent 'head-liners' in the industry.

10 CHANGES TO THE STATUTORY ACCIDENT BENEFITS SCHEDULE (SABS)

Changes to the SABS

- Changes to the SABS took effect on September 1, 2010.
- New maximums on Medical and Rehabilitation Benefits (SABS section 15, 16, 18, & 20):
 - \$3,500 maximum for minor injury.
 - \$50,000 limit on med-rehab benefits, with the option to buy up to the \$100,000 coverage for non-catastrophic impairment.
 - \$1,000,000 lifetime maximum for catastrophic impairment.
- Cost of assessments are paid out of the Med/Rehab limits (SABS section 18(5)) with the exception of insurer examinations, whereas before they were not.



Changes to the SABS

- The reduction in med/rehab benefits has been prohibitive for clients. Funds available for clients with non-catastrophic impairment have been depleting more quickly.
- Consider clients with driving related anxiety-
 - Driving related anxieties are common in clients who have been in a serious accident.
 - Travelling to the driving rehabilitation centre for treatment can be very anxiety provoking to these clients
 - Depending on the level of anxiety, as many as 15 sessions are sometimes required to reintegrate clients back to driving.
 - The total cost of an initial assessment, training for 15 sessions, travel time and mileage to the client's home (within GTA), OT reassessment and documentation can easily exceed \$7,500. The cost of travel to remote locations outside of the GTA would be much greater.

Changes to the SABS

- The cost of assessments (\$2,000) now comes directly out of the med/rehab limit, eating away at the \$50,000 cap rapidly.
- Previously there was never a cap on assessment cost - the criteria was 'reasonable and necessary'.
- Additionally, under section 38(8), adjusters are given discretion to deny benefits for "medical and any other reasons" without requiring an examination. There is no longer the option of a rebuttal.

9 THE MV-1

The MV-1

- The MV-1 is the worlds first and only purpose built wheelchair accessible mobility vehicle direct from the manufacturer for people with disabilities.
- To date, clients using wheelchairs have had to rely on mini-vans that have undergone conversions for accessibility. In contrast, The MV-1 was designed from the ground up for wheelchair accessibility.



The MV-1

- The MV-1 comes equipped with a deployable integrated ramp for quick and easy passenger access.
- Spacious interior can accommodate up to six occupants.
- Is being built at a high-quality assembly plant at AM General LLC in Mishawaka, Indiana.
- Green Option: has a factory-installed Compressed Natural Gas (CNG) fuel system option.

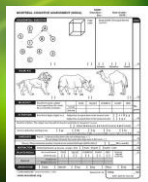


- The MV-1 became available in the US market on September 21, 2011 and will be available in the Canadian market very soon.
- Currently, the client has to be able to transfer into the driver seat (cannot drive from a wheelchair).

8 THE SIMARD MD

The Simard MD

- Historically there has been a lack of screening tools to identify cognitively at-risk drivers .
- Many physicians and specialist have relied on poor scores on the Mini Mental Status Exam (MMSE), or more recently on the Montreal Cognitive Assessment (MoCA) as a means to identify client diagnosed with Alzheimer's or other cognitive conditions where driving may be an issue.

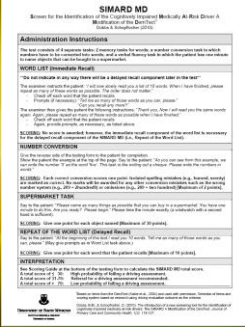


The Simard MD

- The Simard MD is a screening tool that has been developed specifically for the identification of cognitively impaired drivers.
- Generally the Simard MD meets the qualities of a good screening tool in that it is
 - Inexpensive (free)
 - Easy to administer (paper & pencil)
 - Easy to score
 - Short (takes less than 5 minutes)
 - Is patient and administrator friendly
 - Is valid (high predictive properties)

The Simard MD

- The SimardMD consists of 3 scored tasks: Number conversion, Supermarket Task, and Repeat of the Word List
- Dual Cut-Points:
 - Score of 0-30: cognitive functioning is impaired for driving.
 - Score of 31-70: driving assessment is needed to determine fitness to drive.
 - Score of 71-130: cognitive functioning is within functional limits for driving.
- Predictive properties of initial and validation study results:
 - Overall % predicted to fail who fail = 87%
 - Overall % predicted to pass who pass = 81%



The Simard MD

- Drawbacks and limitations:
 - Relies heavily on English language abilities.
 - There was a small, but significant, population of predicted fails who passed an on-road evaluation, and a small, but significant, population of predicted passes who failed the on-road evaluation.
 - More independent study on validity needed. Most of the research to date has been by the developers of the tool.
 - Low face validity.
 - The physician must use the Simard MD in conjunction with other information available such as medical status, subjective information received from clients or their families when determining if a referral to a driving assessment is appropriate.

The Simard MD

- Nonetheless, SimardMD is an innovative screening tool in that it has been developed specifically to screen for at-risk drivers.
- Home grown: Developed by Canadians.



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MCGILL'S GRADUATE CERTIFICATE IN ASSESSING DRIVING CAPABILITIES

McGill's Graduate Certificate in Assessing Driving Capabilities

- In the past there has not been any formal university based education or training in the field of assessing driving capabilities.
- In 2004, McGill University started to offer a Graduate Certificate in Assessing Driving Capabilities. The program is the first, and to date, the only university based training program of it's kind in the world.
- The training program consists of 5 courses and can be completed in under 18 months, on a part-time basis.
- The course material is available in English and French.
- Participation is online and the course content can be accessed anytime, anywhere.

McGill's Graduate Certificate in Assessing Driving Capabilities

- The graduate certificate is designed for occupational therapists and consists of a series of 5 courses.
 - POTH 673 – Screening for the At Risk Driver
 - POTH 674 – Assessing Driving Ability
 - POTH 675 – Driving Assessment Practicum
 - POTH 676 – Adaptive Equipment and Driving
 - POTH 677 – Retraining Driving Skill

McGill's Graduate Certificate in Assessing Driving Capabilities

- In an effort to increase the number of Occupational Therapists in the field and the quality of reporting, the licensing body in Quebec (the SAAQ) has been offering scholarships to Quebec OTs: the scholarship pays for 1/2 the tuition of the courses, provided that all 5 courses are completed.
- 6 Ontario students that have completed the program and have received the Graduate Certificate.



6 CANDRIVE

Candrive

- The Canadian Driving Research Initiative for Vehicular Safety in Elderly (Candrive) was initiated in 2002 with the vision "To establish a national inter-disciplinary collaborative approach to identify, analyze and address the health-related safety and quality-of-life issues pertaining to older drivers."
- The project is funded by a Team Grant from the Canadian Institute of Health Research (CIHR).
- CIHR-funded infrastructure grants:
 - 2002-2008 (\$1.25 million)
 - 2008-2013 (\$5.56 million)
- Candrive's aim is to improve the health, safety, and quality-of-life of Canada's older drivers.



Candrive

- Brings together researchers, senior groups, clinicians, ministries of transportation, other governmental organizations, and non-governmental agencies.
- Goals:
 - To find a way to extend the length of time that older drivers can drive. The research will examine the effectiveness of retraining programs.
 - To develop a screening tool that will allow clinicians to identify which older drivers, for whatever reason, are unsafe to continue operating a motor vehicle or require more-in-depth evaluation.



Candrive

- Objectives:
 - To understand the natural history of driving in older persons.
 - To address all health-related aspects (psychosocial, cultural, linguistic, societal, legal, health care resource, political) of ensuring the safety of older drivers.
 - To develop a scientifically valid method of determining fitness to drive in older persons.
 - To find ways to extend the length of time that persons can drive by exploring retraining programs and restricting licensing.
- Achieved by:
 - Conducting research
 - Influencing policy
 - Improving clinical practice



CanDrive

- The study includes a 5-year multi-centre prospective cohort study of older drivers. The study investigators proposed to recruit 1000 older drivers, aged 70 and older, from seven Canadian cities. There is also a cohort study in New Zealand (Ozcandrive).
- Recruitment in Canada closed at the end of November 2010 with 933 participants (93% success rate). Recruitment in Australia has also recently closed with a total of 250 participants.
- In Canada, year 3 of the project is underway. Data analysis is underway and results will be published soon!
- Information available through www.candrive.ca



5 THE SURE GRIP LOCK OUT SYSTEM

The Sure Grip Lock Out System

- **Company History:** Keith Howell, the president and founder of Howell Ventures Ltd. was in his early teens when he sustained an injury resulting in quadriplegia. When pursuing his goal of driving, he tried several styles of manual hand controls. Once he settled on a particular type, he realized that the manufacturer of that type had gone out of business, so Mr. Howell set out to manufacture a set of controls for himself.
- Sure Grip hand controls have become a leader in the disabled driving aids market in North America.



The Sure Grip Lock Out System

- The company manufactures four styles of hand controls including Push/Rock, Push/Right Angle, Push/Pull, and Push Twist, Left Foot Accelerators, as well as other devices such as Steering Wheel Attachments.



The Sure Grip Lock Out System

- The problem with hand-controls: Accidents caused by unauthorized/unintended use of hand controls and left foot accelerators. Curious mechanics or valet attendants are the usual culprits. In response to this concern, the people at Sure Grip have recently introduced the revolutionary AutoLock system. Which ensures that only the intended user of the hand controls is using them.
- The manual Autolock system is now standard on all hand controls and left foot accelerators. The user pulls a pin to activate the controls at the start of the drive and pushes the pin back to deactivate the controls at the end of the drive. The optional electronic system performs this action automatically, that is, it locks out the controls automatically when the vehicle is shut off.

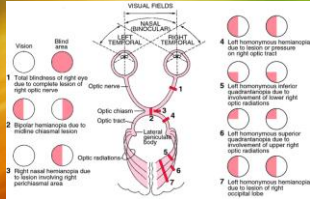
4 UPDATES AND CHANGES TO THE VISION WAIVER PROGRAM

Changes to the Vision Waiver Program

- Review the Ministry of Transportation (MTO) Vision standards:
 - Visual acuity, as measured by Snellen Rating, that is no poorer than 20/50, with both eyes open and examined together with or without the aide of corrective lenses and
 - A horizontal visual field of at least 120 continuous degrees along the horizontal meridian and at least 15 continuous degrees above and below fixation, with both eyes open and examined together.

Changes to the Vision Waiver Program

- Examples of conditions where visual field may be compromised: Stroke, Traumatic Brain Injury, Retinitis Pigmentosa, Glaucoma, Macular Degeneration, Diabetic Retinopathy, Optic Neuropathy
- Types of visual field deficits: Homonymous Hemianopsia (right or left), Quadrantanopia (right/left/upper/lower), Scotomas (central/multiple)



Changes to the Vision Waiver Program

- In May 2005 the MTO introduced a vision waiver program for Class G individuals who do not meet the 120 degree horizontal visual field requirement.
- The program gives individuals who do not meet the horizontal visual field requirement the opportunity to demonstrate through a driving evaluation, whether they can compensate for the defect and drive safely.



Changes to the Vision Waiver Program

- Other criteria for entry into the program include:
 - Certain driving record requirements
 - Satisfactory medical report
 - Satisfactory vision assessment
- Functional assessment from an approved assessment centre for Class G Vision Waiver. There are now 10 centres including:
 - Skill Builders, Barrie
 - St. Joseph's, Thunder Bay
 - St. Joseph's, London
 - DriveAgain, Toronto
 - Saint Elizabeth, Toronto
 - Ottawa Hospital, Ottawa
 - Sudbury Regional Hospital, Sudbury
 - Advance Driver Rehabilitation Services, St. Catharines
 - Advance Driver Rehabilitation Services, Burlington
 - A second location in Ottawa

Changes to the Vision Waiver Program

- The functional assessment includes:
 - A thorough in-clinic evaluation of the client's physical, cognitive, visual perceptual abilities for driving.
 - Assessment of the client's insight into their condition is also a key component.
- Some of the more salient changes to the original 2005 protocol include:
 - Skill set: OT Should have 'advanced-specialized' training in the field of driver rehabilitation. The driving instructor must have at least 3 years of experience and receive a minimum of 3 hours of specific vision training to be able to conduct assessment.
 - The OT must have a copy of the visual field study and/or report prior to conducting the assessment, otherwise the assessment must not proceed.
 - If the driver is undergoing a second assessment (after 'failing' a first), the OT must have a copy of the previous assessment prior to conducting the assessment.
 - The OT will spend time during the assessment, prior to any test administration to ensure that the driver understands his/her vision loss.
 - The on-road assessment includes awkward angles and parking lot with regard to observing hazards.
 - More thorough metacog interview.
 - Compensatory and deficit specific strategies are encouraged.

Changes to the Vision Waiver Program

- Some interesting facts:
 - From 2005 to 2010 there were a total of 1511 applications to the vision waiver program.
 - 23 vision waiver applications were withdrawn (2%)
 - 533 vision waiver applications were denied (35%) due to driving record criteria not being met or failed functional assessment.
 - 955 vision waiver applications were approved (63%) and clients completed all elements of the vision waiver program.

3
GOSHICHI

GoShichi

- The GoShichi is a new pick-up truck conversion that will be available in the local market in the near future.



GoShichi

- Historically, clients driving while in their wheelchair only had the option of driving a converted mini-van.
- Technology currently on the market requires wheelchair users to transfer into a Turny seat, which lifts into the driver position. The driver's wheelchair is then transported into the bed of the truck by a hoist mechanism.



GoShichi

- In the recent market there is no conversion that would allow a client to drive a pick-up truck while seated in their wheelchair. For example a client with quadriplegia.
- The GoShichi conversion will be available in the local market on Chevrolet 2500 trucks (models with a backseat)
- The back seat remains in the vehicle, maintaining space for a total of 5 passengers.
- The client has the option of 2 or 4 wheel drive; the latter being a necessity in rural / snow-belt areas.
- A passenger conversion is also available.



GoShichi

- The advantages of this conversion include
 - The option to drive something other than a van.
 - The option to drive a 4 wheel drive vehicle
 - The space in the cargo bed is maintained.
 - Cost is comparable to a converted van
 - Available for driver or passenger application.
- Disadvantages include:
 - Can only be used with electric tie-down.
 - If the vehicle has been converted for driver application. The client in the wheelchair would not be able to travel in the passenger side (can't alternate drivers, may be an issue in an emergency situation)



GoShichi



2 AMENDMENTS TO THE BC MOTOR VEHICLE ACT, SECTION 230

BC Motor Vehicle Act, Section 230

- Regulatory standards regarding reporting potentially unfit drivers vary across the country.
- Physicians in most provinces are legally responsible to report

Province	Obligation to Report
British Columbia	Mandatory
Alberta	Discretionary
Saskatchewan	Mandatory
Manitoba	Mandatory
Ontario	MANDATORY
Quebec	Discretionary
New Brunswick	Mandatory
Prince Edward Island	Mandatory
Nova Scotia	Discretionary
Newfoundland	Mandatory
Yukon Territory	Mandatory
North West Territory	Mandatory



BC Motor Vehicle Act, Section 230

- Specifically in Ontario, Section 203 of the Highway Traffic Act requires that all legally qualified medical practitioners must report to the Registrar of the Motor Vehicles the name, address and clinical condition of any patient sixteen years of age or older who, "is suffering from a medical condition that may make it dangerous for the person to operate a motor vehicle."



BC Motor Vehicle Act, Section 230


- Changes to legislation will result in Occupational Therapist having the duty and authority to report driver fitness concerns.
- On June 3, 2010, Bill 14 (Motor Vehicle Amendment Act) became law. The bill provided several amendments to the BC Motor Vehicle Act. Amendment to Section 230, Report of medical condition or impairment, add Occupational Therapist and Nurse Practitioners to the current list of healthcare professionals, who have a duty and authority to report concerns about a person's fitness to drive as a result of a medical condition or functional impairment.
- The amendments are still not in force as the regulations have yet to be finalized by the Ministry of Public Safety and Solicitor General. The Office of the Superintendent of Motor Vehicles (OSMV) has confirmed that approval of the regulation is delayed until January 2012.
- Six month planned transition period.

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UPDATES FROM ADED ONTARIO CHAPTER

ADED Ontario Chapter

- The association for Driver Rehabilitation Specialist (ADED) was established in 1977 "to support professionals working in the field of driver education / driver training and transportation equipment modifications for persons with disabilities through education and information dissemination. The organization was previously operating as The Association for Driver Educators for the Disabled (name change in 1997)
- It is non-profit organization based out of Hickory, North Carolina
- The professional fields represented in ADED consist of:
 - Driving Education/Training
 - Equipment Manufacturers
 - Equipment Dealers
 - Kinesio Therapist (Kinesiologist)
 - Occupational Therapist
 - Physical Therapist
 - Rehabilitation Engineering
 - Rehabilitation Specialist
 - Rehabilitation Technology
 - Vocational Rehabilitation



ADED Ontario Chapter

- Emphasis is placed on a yearly conference with workshops, training programs, and one of the largest exhibits of products for both driver with disabilities and professionals working in the field.
- Membership continues to increase with representation from nearly every state plus Canada, Australia, and England.
- The Certified Driver Rehabilitation Specialist exam was developed in 1994-1995 and was first administered on August 25, 1995. The certification validates the education and experience benchmarks that identify the CDRS as an expert in the field.
- Members in the Ontario chapter includes Occupational Therapist, Driving Instructors, and Vehicle Modifiers.
 - The group meets twice yearly.
 - Is dedicated to professional development of members: meetings include 1 or 2 presenters on relevant topics.
 - One of the mandates of the group is to develop best-practice guidelines.