

## Using MRBDT, GOSE and Clinician Documentation to Determine Brain Injury and Catastrophic Impairment

Presented by:

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## ABI + CAT Criteria Since June 1, 2016

1. More ABI Survivors can be CAT

2. fMRI shows Mild Brain Injury Changes

3. GOSE

4. Pre-accident problems

## “Positive Findings”

“The injury shows positive finding on:”

- CT, MRI, or

“any other medically recognized brain diagnostic technology indicating intracranial pathology that is a result of the accident ...”

= fMRI + DTI MRI technique\*

\*see attached list of authorities

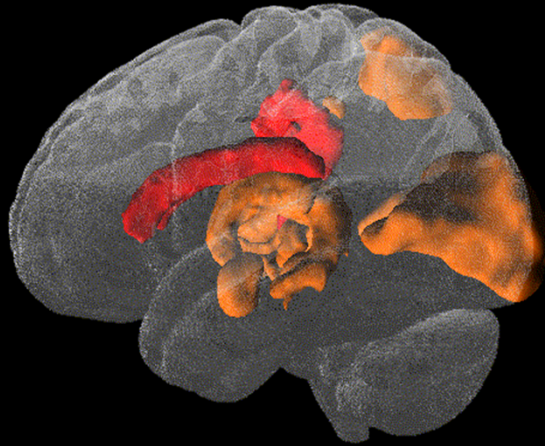
# Structural MRI (DTI)

- Damaged cells function differently physiologically
- DTI – directionality and magnitude of diffusion of water molecules measured
- Can track nerve impulse pathways
- Can determine structural integrity in the brain

# fMRI

- Using resting state functional MRI
- Allows measurement of functional changes of whole brain during a neutral state
- Using a complexity analysis of fractal dimensions which detects subtle critical changes
  - Investigates the presence of reduced neuronal function in key brain regions
- Those are then compared to age & sex matched healthy control population

# fMRI



## fMRI

- Computer shows abnormal concussion related findings compared to normal brain
- Visualizes areas with reduced neuronal function compared to age & sex matched healthy control population. fMRI complexity fractal dimension measurements differentiate between:
  - mTBI + Normal
  - mTBI + Depression
  - mTBI + Chronic Pain
  - mTBI + PTSD

# Triaging the ABI Impairments

Critical documentation for ABI CAT determination: Patient pre, post accident function documentation:

- Obtain collateral info from family
- In home and accessing community – examples of prompting + cueing (re adl, clothing, problem solving, decision making, socializing, planning, behaviours, memory)

# Triaging the ABI Impairments

- Examples of functional changes in GOSE activities (dependence, in home and out of home, shopping, travel, work, socializing with family & friends, leisure pursuits)

# Triaging the ABI Impairments

- Attendant Care Assessment
- RSW notes
- Discuss plan re RTW or school with team & identify barriers

# Triaging the ABI Impairments - GOSE

- Obtain GOSE assessment which references cueing & prompting examples from RSW notes, fMRI, physiatry, neurology, speech & OT situational assessments and CAT reports
- Obtain up to date collateral information from friends and family re pre-post changes

# GOSE

## Key points from GOSE Structured Interview Article – Wilson, Pettigrew & Teasdale 1998 Article

- GOSE different from GOS
  - Subdivides upper three categories severe, moderate & good, into “Upper” & “Lower”
  - How injury affects function in major life areas
- Use the best source of information available: interview a relative/friend

# GOSE Criteria

- A.** Vegetative State (VS or VS\*), one month or more after the accident,
- B.** **Upper Severe Disability** (Upper SD or Upper SD\*) or **Lower Severe Disability** (Lower SD or Lower SD\*), six months or more after the accident, or
- C.** **Lower Moderate Disability** (Lower MD or Lower MD\*), one year or more after the accident.



## GOSE WILSON 1998 ARTICLE POINTERS & GUIDELINES

1. Interview family & close friends re function and needs
2. If answers to one of the Dependence questions (Q2-Q4) show s/he is no longer fully independent  
**“THEN THEY ARE SEVERELY DISABLED” (p. 5)**

## GOSE POINTERS & GUIDELINES

Q2b patient is “in the lower category of severe if they cannot be left alone for 8 hours.”

(\*) Lower SD\*, Upper SD\* and Lower MD\* are CAT

\*= patient was not fully independent before the injury

**\* Accommodates both thin skulled and crumbling skull applicants as more likely to be found CAT**

## GOSE & Pre-injury Disability

**“Rate people on their current functional status and indicate existence of pre injury disability by putting an “\*” near the rating (p. 5)**

- “e.g.: if patient not fully independent before injury then they should be rated Severely Disabled\* (SD\*) or upper or lower SD\* depending on the degree of pre-injury disability”

## GOSE Independence Questions:

“Q2a – people may require actual assistance with ADL’s, they may need prompted(sic) or reminded to do things or they may need someone with them to supervise them because they would be unsafe otherwise. In all these cases they are dependant.”

(p. 9 Appendix, Wilson 1998 Article)

# GOSE Question 2a

## INDEPENDENCE IN THE HOME

2a Is the assistance of another person at home essential every day for some activities of daily living?

☐

1 = No

2 = Yes

If "No" go to question 3a

For a 'No' answer they should be able to look after themselves at home for 24 hours if necessary, though they need not actually look after themselves. Independence includes the ability to plan for and carry out the following activities: getting washed, putting on clean clothes without prompting, preparing food for the themselves, dealing with callers, and handling minor domestic crises. The person should be able to carry out activities without needing prompting or reminding, and should be capable of being left alone overnight.

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# GOSE QUESTIONS

## GOSE Question 2a at 6 months

"Is the **assistance** of another person at home essential every day for some ADLs?"

*[look at A.C. reports & RSW notes re cueing & prompting]*



If Yes, then s/he is CAT

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# GOSE QUESTIONS

## GOSE Question 2a at 6 months

If may need **prompting or reminding (direct or indirect)**, if person needs help planning activities, need help dealing with callers, minor domestic crises, or not safe to leave alone overnight, **then, GOSE test says they need assistance.**

and s/he is CAT

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## GOSE Question 2b

### INDEPENDENCE IN THE HOME

2b Do they need frequent help or someone to be around at home most of the time?

☐

1 = No (Upper SD)  
2 = Yes (Lower SD)

For a 'No' answer they should be able to look after themselves at home for up to 8 hours during the day if necessary, though they need not actually look after themselves.

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# GOSE QUESTIONS

## GOSE Question 2b

If they may need frequent help or someone to be around at home most of the time? Is help necessary for more than 8 hours/day? = Lower Severe Disability

If help, prompting, cueing, necessary for *less than 8* hours/day = Upper Severe Disability

1= No (Upper SD)

2= Yes (Lower SD)

If YES = CAT

If NO = CAT

## GOSE Question 2b

### Key narrative report info:

- Collateral info
- Examples of reminding, cueing, prompting
- Showing non intermittent “on call” direct or indirect cueing/texting support has been made necessary and has, since accident, become part of the family member or attendant care provider’s normal daily routine

## GOSE Question 3a

### INDEPENDENCE OUTSIDE THE HOME

3a Are they able to shop without assistance?

☐

1 = No (Upper SD)

2 = Yes

This includes being able to plan what to buy, take care of money themselves, and behave appropriately in public. They need not normally shop, but must be able to do so.

## GOSE, shopping and CAT

### GOSE Question 3a at 6 months

“Is s/he able to shop without assistance?”

“Assistance” – look at examples for RSW notes and OT community assessments & family: if cueing, prompting = “assistance” = Upper Severe



If NO, then s/he is CAT

# GOSE, shopping and CAT

## GOSE Question 3a at 6 months

If may need help to plan what to buy, if need help with taking care of money or if may not behave appropriately in public or require assistance = Upper Severe



then s/he is CAT

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## GOSE Question 4a

### INDEPENDENCE OUTSIDE THE HOME

4a Are they able to travel locally without assistance?

☐

1 = No (Upper SD)

2 = Yes

They may drive or use public transport to get around. Ability to use a taxi is sufficient, provided the person can phone for it themselves and instruct the driver.

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## GOSE, local travel and CAT

### GOSE Question 4a at 6 months

“Is s/he able to travel locally without any assistance/cueing/prompting?”  
“Assistance” when attempting task with RSW or OT was client able to redirect, explain directions, behave appropriately without any cueing? If needed assistance = Upper Severe



If Not, then s/he is CAT

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## GOSE, local travel and CAT

### GOSE Question 4a at 6 months

If may need help to call, use money, behave appropriately, or direct driver



then s/he is CAT

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## GOSE Question 5a

### WORK

5a Are they currently able to work to their previous capacity?

☐

1 = No

2 = Yes

If they were working before, then their current capacity for work should be at the same level. If they were seeking work before, then the injury should not have adversely affected their chances of obtaining work or the level of work for which they are eligible. If the patient was a student before injury then their capacity for study should not have been adversely affected.

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## GOSE Question 5b

### WORK

5b How restricted are they?

☐

1 = a (Upper MD)

2 = b (Lower MD)

- a) Reduced work capacity. [includes reduced capacity to study]
- b) Able to work only in a sheltered workshop or non-competitive job, or currently unable to work. [includes voluntary work/unable to study]

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## **GOSE, Work and CAT**

**GOSE Question 5a and 5b at one year**

If can't work



Then CAT

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## **GOSE, Work and CAT**

**GOSE Question 5a and 5b at one year**

If working in a sheltered  
environment



Then s/he is CAT

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## GOSE, Work and CAT

### GOSE Question 5a and 5b at one year

If working with accommodations and still may require attendant care, cueing or prompting

Then s/he is CAT under Q2. b.

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## GOSE + Social + Leisure Activities

### GOSE Question 6b at one year

If unable to participate: rarely, if ever, take part ("Experience suggests that the main affect of head injury . . . Tends to be withdrawn from activities that involve social interaction  
– p. 10 Appendix, Wilson Article

then s/he is CAT

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## **GOSE + Social + Leisure Activities**

### **GOSE Question 6b at one year**

Remember: If they may require prompting or cueing to participate in their pre-accident normal S&L activity, under Q2b:



then s/he is CAT

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## **GOSE, Socialization and CAT**

### **GOSE Question 7a and 7b at one year**

“Have there been psychological problems which have resulted in ongoing family disruption or disruption to friendships?”

Breakdown or threatened breakdown of relationships with family or friendship = Lower Moderate



then s/he is CAT

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# GOSE, Socialization and CAT

## GOSE Question 7a and 7b at one year

If constant quick temper, or irritability, or anxiety or insensitivity to others or mood swings or depression or unreasonable/childish behaviour that continues to disrupt relations with family or friends: if a family/injured person have become very withdrawn & socially isolated  
= Lower Moderate

then s/he is CAT

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# GOSE/GOS CASE LAW

## GOS case law - *Watters v. State Farm*

- "SEVERE"
- Social disability
- Require continuing social support
- Revealed by psychometric testing
- Neuropsych, physiatry, psychology, psychiatry, OT and speech, RSWs

Left alone during the day  
with ongoing cuing

= SEVERE

= CAT

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# GOSE and GOS

## **GOS case law - *Watters v. State Farm***

- Collateral interviews since “lacks insight” and under-reports disability
- Neuropsych more NB than neurologist
- Requires reminders
- Rarely socializes
- Needs direction, help and supervision in home and outside of home
- Document confusion, cueing, depends on daily support.

# GOSE and GOS

## **GOS case law - *Watters v. State Farm***

- Form 1's: call, text, cue = “comfort, safety and security in environment”
- Form 1's: basic supervisory care: unsafe in emergency: vertigo, confusion
- Goes out on own on limited basis
- Can be left alone for short periods of time
- Treating OT opinion preferred
- Onset: psychological decline reduced cog fn.
- Contrast between pre & post accident function in home, community, socially

## GOS CASE LAW UNDER THE LAT:

### 16-002503 v. State Farm

- Accident pre 2016 changes
- Pre-accident applicant suffered severe brain injury, epilepsy, developmental delay and autism spectrum disorder
- Applicant was dependant pre-accident
- All agreed car accident caused brain injury
- Since accident, increased difficulties sleeping, eating, increased behavioural issues and increased seizure activity.

## GOS CASE LAW UNDER THE LAT:

### 16-002503 v. State Farm

- I.E. found accident exacerbated previous impairment
- Applicant had GOS score of 3 both before and after accident
- Applicant argues accident caused significant increase in dependency, need for care and daily supports

## GOS CASE LAW UNDER THE LAT:

### 16-002503 v. State Farm

- Applicant was minor at the time of accident, but SABS takes into account that GOS rating must be adapted for someone under the age of 16 given normal dependency of under 16 upon parent.
- Test whether the dependencies increased due to impairments caused by accident.
- Both agreed that car accident caused injuries.
- Applicant has mental capacity of a 2 – 3 year old child.

## GOS CASE LAW UNDER THE LAT:

### 16-002503 v. State Farm

#### Onus on Applicant:

- As the applicant was disabled and dependant on someone before the accident, applicant would have to prove the car accident caused an increase in his dependencies or created new dependencies.
- Importance of pre/post evidence from doctors, family, friends



## GOS CASE LAW UNDER THE LAT:

### 16-002503 v. State Farm

#### Critical Evidence & Analysis:

#### Pre-accident v Post-accident

**Pre-accident** = angry outbursts, aggression, hitting family members, head banging, becoming incontinent, throwing tantrums, anxiety and attachment disorder, difficulty sleeping, gradual increase in amount of time he was capable of attending school, to full days just prior to accident. Responsive to social interactions, social praise and good manners, but personal safety is still an issue, some emotional control improvement, could self-calm.

## GOS CASE LAW UNDER THE LAT:

### 16-002503 v. State Farm

#### Pre-accident v Post-accident

**Post-accident** = arbitrator accepted deterioration and increased dependency, nature of care and daily support as applicant was now self-harming, introduction of increased medication, now could not be left in one room and supervised from a separate room, aggression escalated to biting and spitting on persons, increased seizure activity requiring more supervision for safety, applicant had regressed, appearance of behavioural issues and emotional issues that negatively impact ability to function, attend school and engage in day-to-day activity.

# GOS CASE LAW UNDER THE LAT:

## 16-002503 v. State Farm

### Conclusion:

Citing both material contribution and “but for” test, arbitrator finds applicant’s condition worsened to a degree that rendered him catastrophically impaired, he meets either causation test whether a “but for” or a material contribution test.

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# THANK YOU

Please feel free to call or email with questions.

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## DAVID MACDONALD

PARTNER



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David has been practising personal injury litigation and helping car accident victims who have suffered catastrophic injuries for over twenty five years. He is Certified as a Specialist in Civil Litigation by the Law Society of Upper Canada, recognized by Lexpert® as consistently recommended for Personal Injury Litigation by Ontario's personal injury lawyers, and acknowledged as a Best Lawyer in Civil Litigation practice by Best Lawyers Canada. David has advocated to the government on behalf of car accident victims for fair laws for accident benefits and compensation. He has worked as a board member of Peel, Halton, Toronto and Hamilton Brain Injury Associations. In 2003 the Minister of Finance chose David from all personal injury lawyers in the province, and appointed him a member of Executive Committee to the Superintendent of Insurance for Ontario's Auto Reforms Implementation Committee.

*Cont'd.*

For more information on David MacDonald, please visit:  
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David publishes and lectures to lawyers, adjusters and health care practitioners on Catastrophic Injury Determination quarterly. Annually, he is Guest Lecturer on Litigation Experts at The University of Western Ontario Faculty of Law. David has conducted and won several arbitrations and many personal injury trials arising from car accidents and Municipal Liability. David provides, without expense, in-person initial consultations at hospital or home and is available by cell at 647-290-7291.

## TESTIMONIALS

"Over a year and a half ago I entered into a boardroom and cast eyes with a humble gentleman, for lack of a better word. He seemed somewhat unassuming, but, he was the ONLY ONE who showed up from the list of names that was presented to me. I was quite torn, sick, crying, etc., with every sign of broken parts and patches of ALL SORTS. That was convincing enough for me to say — without a shadow of a doubt — please represent me.

To date, I am 100% satisfied that I made the right choice. David, you did a wonderful job! I can't find the words to describe my level of satisfaction. You could not have done a better job. It is remarkable and I would recommend ANYONE to trust you – and they would NOT regret their decision.

Thank you David from the bottom of my heart.

God bless you and keep up the excellent job you are doing.

Also, your staff have been amazing."

- Yvonne

"Dear David MacDonald and the staff at Thomson Rogers,

It has been a great support to Dave and myself to have You, and the team at Thomson Rogers represent us in Dave's recovery, and the claim for insurance. With his brain injury, he needed so much support and daily therapy. You quickly put a team of great therapists together to meet his needs. Your involvement managed a successful settlement of the benefits he was entitled to. It gave me the time to attend to his needs, without worrying about the legal and financial end of things. This has allowed Dave to come so much further than was ever expected. When you brought him to the Acquired Brain Injury Art show, you brought back his will to draw. You are so aware of the needs of people with brain injury, you were able to put all the right tools for his recovery in place. From unpaid wages to housing, you took care of it all. You were able to prove Dave's needs for re-education. You put us in decent housing after being placed in housing that could not meet my son's needs. You made sure all his needs were met and then some. I could not have managed all the issues that came up throughout my son's recovery without you and the staff and clerks at Thomson Rogers. You are a special team of people.

Thank you for all your help."

- F. Rose – Dave's Mom

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