HOW TO COMPLETE A SITUATIONAL ASSESSMENT ON THE GOS-E CRITERION

**Presented by:** 

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#### HISTORY OF CHANGES TO CAT DETERMINATION ON ABI

#### **OLD SABS**

Brain impairment that results in,

(i) a score of 9 or less on the Glasgow Coma Scale, according to a test administered within a reasonable period of time after the accident by a person trained for that purpose, or

(ii) a score of 2 (vegetative) or 3 (severe disability) on the Glasgow Outcome Scale, according to a test administered more than six months after the accident by a person trained for that purpose;

#### 2016 SABS

i.

If the insured person was 18 years of age or older at the time of the accident, a traumatic brain injury that meets the following criteria:

The injury shows positive findings on a computerized axial tomography scan, a magnetic resonance imaging or any other medically recognized brain diagnostic technology indicating intracranial pathology that is a result of the accident, including, but not limited to, intracranial contusions or haemorrhages, diffuse axonal injury, cerebral edema, midline shift or pneumocephaly.

ii. When assessed in accordance with the Glasgow Outcome Scale and the Extended Glasgow Outcome Scale, the injury results in a rating of:

A. Vegetative State (VS), one month or more after the accident

B. Upper Severe Disability (Upper SD or SD+) or Lower Severe Disability (Lower SD or SD-), six months or more (questions 2b - 4a) after the accident, or

C. Lower Moderate Disability (Lower MD or MD-), one year or more (question 5b) after the accident.



## WHAT IS THE GLASGOW OUTCOME SCALE (GOS) ?

- The Glasgow Outcome Scale (GOS) (Jennett & Bond, 1975), has become the most widely used scale for assessing outcome after head injury and non-traumatic acute brain insults
- Classification system indicating the severity of a disability after traumatic brain injury
- **Categories focus on:**
- Daily function
- Social behavior The effect of social and leisure activities and disruption to family and friendship



Jennett et al., 1975; Wilson et al., 1998; Jennett, 2005 (ABIER 2000; Levin 2001; Jennett 2005; Wilson 2000)

#### **5 CATEGORIES OF THE GLASGOW OUTCOME SCORE (GOS)**

I	Death
2	Vegetative State
3 (after 6 months)	<ul> <li>Severe disability</li> <li>Dependent on daily support for <u>at least one</u> ADL task</li> <li>Exceptional family support may enable patients to be looked after at home</li> <li>May be "unable to organize their day-to-day lives effectively"</li> <li>Likely unable to travel by public transportation</li> <li>Unable to work in a sheltered environment</li> <li>Individuals only able to "maintain self-care within the house"</li> <li>Unable to navigate community/community resources -</li> </ul>
4	Moderate Disability
5	Good recovery



#### STANDARDIZATION INTER RATER RELIABILITY FOR THE GOS

•Standardization -There is <u>no standardized written protocol</u> to conduct the assessment and rating of the GOS.

Outcome on the GOS has been assigned after a short, usually <u>unstructured interview</u> with no written protocol.

•Reliability - <u>Results were variable among assessors</u> with systematic bias between different professional groups

•Validity - It was interpreted as emphasizing physical rather than cognitive and emotional problems

•External Validity - The choice of assessment tools to rate the GOS requires an <u>understanding</u> of the relationship between the GOS and other measures of functional impairments and social disability

•Construct Validity -The precise neurological, neuropsychological, emotional and behavioral indices used depends on the <u>purpose of the assessment</u> and the resources available to carry it out



#### WHAT IS THE GOS-EXTENDED?

I	Death				
2 (after I month)	Vegetative State- OT Hospital Visit + physician				
3 (after 6 months)	Lower severe disability - Completely dependent on others				
	2 days OT Situational Assessment + physician				
4 (after 6 months)	Upper severe disability - Dependent on others for some activities				
	2 days OT Situational Assessment + physician				
5 (after I year)	Lower moderate disability - Unable to return to work or participate in social activities				
	2 days OT Situational Assessment + physician				
6	Upper moderate disability - Returned to work at reduced capacity, reduced participation in social activities				
7	Lower good recovery - Good recovery with minor social or mental deficits				
8	Upper good recovery				



Standardization Inter rater reliability for the GOS-E

- Reliability GOS-E was found to be a reliable outcome measures for TBI survivors
- Validity Using a series of functional outcome measures, assessment of affective status, and neuropsychological tests as criteria, the validity of the GOS-E generally exceeded the GOS.
  - Analysis of the outcome data for the patients who completed both the 3-month and 6-month assessments disclosed that the GOS-E was more sensitive to change than the GOS.



## GOS –E : STRENGTHS & LIMITATIONS



Can be applied to various cases
Clinically relevant categories

(Levin 2001; Jennett 2005; Wilson 2000)



## LIMITATIONS

- Designed to assess global outcome
- Not a detailed assessment
- Categories are broad and the scale does not reflect subtle improvements in functional status of an individual (Pettigrew et al. 1998).
- Individuals may achieve considerable improvement in ability, but not change outcome category (Brooks et al. 1986).



### **HOW IS IT ADMINISTERED?**

- To assess the impact of impairment and disability caused by a head injury, the assessor uses a structured interview which considers:
- Changes in a person's roles
- Effect on social & leisure activities
- Disruption to family and friendships
- Pre-injury disability status
- Final rating is based on the lowest category of outcome indicated by responses

(Jennett 2005; Wilson 1998; Wilson 2000)



#### **STRUCTURED INTERVIEW** FOR THE GOS-E

POST DISCHARGE STRUCTURED INTERVIEW FOR GOSE							
Respondent:	0 = Patient alone	1 = Relative/friend/caret	aker alone	2 = Patient plus relative/friend/caretaker			
Conciousness:							
1. Is the head-injured person able to obey simple commands or say any words?							
	O Yes	No (VS)					
Note: anyone who shows the ability to obey even simple commands or utter any word or communicate specifically in any other way is no longer considered to be in vegetative state. Eye movements are not reliable evidence of meaningful responsiveness. Corroborate with nursing staff and/or other caretakers. Confirmation of VS requires full assessment.							
Independence at ho	ome:						
2a. Is the assistance	of another person at	t home essential every da	y for some a	ctivities of daily living?			
	O Yes	No (VS)	If no: go t	o 3			
Note: 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 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.							
2b. Do they need frequent help of someone to be around at home most of the time?							
	Yes (lower SD)	No (uppe	er SD)				
Note: for a NO answer they should be able to look after themselves at home up to eight hours during the day if necessary, though they need not actually look after themselves							
2c. Was the patient independent at home before the injury?							
	O Yes	O No					
Independence outside home:							
3a. Are they able to shop without assistance?							
	O Yes	No (uppe	er SD)				



## WHAT IS INCLUDED IN SEVERE DISABILITY (SD) OF GOS-E?

- Considers:
  - Independence within the home (question 2)
    - If they are not independent within the home, they are considered LOWER SEVERE DISABILITY (score of 3 CAT)
  - Independence outside the home (question 3 + 4)
    - If they are **not** independent outside the home, they are considered **UPPER SEVERE DISABILITY** (score of 4 CAT)



#### GOS-E ON INDEPENDENCE IN THE HOME

2A. IS THE ASSISTANCE OF ANOTHER PERSON AT HOME ESSENTIAL EVERY DAY FOR SOME ACTIVITIES OF DAILY LIVING?
2B. DO THEY NEED FREQUENT HELP OR SOMEONE TO BE AROUND AT HOME MOST OF THE TIME?

For 2 A. Independence includes the ability to plan for and carry out the following activities:

- Getting washed
- Putting on clean clothes without prompting
- Preparing food for 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.)

#### **Does the level of restriction represent a change in respect to the pre-trauma situation?**



#### WHAT IS INCLUDED IN QUESTION #2?

"Q2a – people <u>may</u> require actual assistance with ADL's, they may need be prompted or reminded to do things or they <u>may</u> need someone with them to supervise them because they would be unsafe otherwise. In all these cases they are dependent."

(p. 9 Appendix, Wilson 1998 Article)



#### **INDEPENDENCE IN THE HOME**

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

If "No" go to question 3a

For a 'No' answer they should be able to look after themselves at home for 8/24 hours if necessary, though they need not actually look after themselves.



#### GOS-E ON INDEPENDENCE OUTSIDE HOME

#### 3A. ARE THEY ABLE TO SHOP WITHOUT ASSISTANCE? 4A. ARE THEY ABLE TO TRAVEL LOCALLY WITHOUT ASSISTANCE?

For 3A – shopping without assistance 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.

For 4A. Traveling locally without assistance?

- 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.



#### WHAT IS INCLUDED IN **MODERATE DISABILITY (MD)** OF GOS-E?

#### Considers:

- Work (question 5)
  - If reduced work capacity, considered Upper Moderate Disability (score of 6 NOT CAT)
  - If sheltered workshop or unable to work, considered Lower Moderate Disability (score of 5 CAT)

#### **Social/Leisure Activities (question 6)**

- If participating much less (half as often as pre-injury), considered Upper Moderate Disability (score of 6 – NOT CAT)
- If unable to participate, considered Lower Moderate Disability (score of 5 CAT)

#### Family and Friends (question 7)

- If extent of disruption has been frequent (once a week or more), considered Upper Moderate Disability (score of 6 – NOT CAT)
- If extent of disruption has been constant (daily, intolerable), considered Lower Moderate Disability (score of 5 – CAT)



#### **GOS-E ON WORK**

5A. ARE THEY CURRENTLY ABLE TO WORK (OR LOOK AFTER OTHERS AT HOME) TO THEIR PREVIOUS CAPACITY?

5B. HOW RESTRICTED ARE THEY?

For 5. a. Reduced work capacity - Upper Moderate Disability - NOT CAT

Change in level of skill or responsibility required

Change from full time to part time work

Special allowances made by the employer (e.g. increased supervision at work)

Changes from steady to casual employment (i.e. no longer able to hold steady job)

5. b. **Sheltered workshop,** non-competitive job, or unable to work – Lower Moderate Disability - CAT



#### PRINCIPLES OF CONDUCTING A SITUATIONAL ASSESSMENT

## **Principle #1 - Review the complete medical file:**

- To gather the client's pre- and post-accident functioning
- To learn the diagnoses and ensure that ABI with positive findings exist and to document diagnostic imaging showing head injury
- To review client's impairments as documented by other providers
- To review the level of care she/he is receiving for daily living (i.e. prompting, cueing, total assistance) and Attendant Care allowance
- To review client's progress to date
- Identify emotional risk prior to conducting the assessment



#### **IDENTIFY RISK**

- As per the OSOT document for conducting a situational assessment:
- Screen the referral to ensure it is within the OT's scope of practice
- Identify individuals/contacts for collateral information
- Determine if it would be best to be accompanied
- Obtain informed consent
- Use safe tools and assessment methods
- Use clinical judgement should safety issues arise
- Ensure the client is aware they can take a break or discontinue testing
- Inform the client if the OT plans to provide a follow up call
- Follow up the day following the assessment to assess for any negative sequala postassessment
  - https://www.osot.on.ca/docs/practice\_resources/Situational\_Assessments\_2020.pdf
    - OSOT Supporting Your Professional Practice: Occupational Therapy Situational Assessments in Ontario's Automobile Insurance Sector



## Principle #2 - Complete a <u>two-day</u> assessment:

To assess for independence inside and outside the home (one day each)
To capture a complete clinical picture
To assess for deterioration of function across two days



Principle #3- Assess the client over a day- Plan for at least six hours/day:

- To complete sufficient number of situations for analysis
- To assess deterioration in function across a typical day
- To capture an optimal clinical picture



# **Principle #4 -Develop and design situations/ scenarios which:**

- Are meaningful and relevant for the client's daily routine and activities
- Resemble the client's pre-accident daily roles and responsibilities
- Are matching reality (i.e. cooking an egg does not show an ability to cook)
- Imitate real life (i.e. daily life doesn't happen in isolation) including novel situations, emergencies, unplanned events
- Challenge the client's various cognitive skills



#### **ANALYSE THE CLIENT'S PERFORMANCE:**

- Consider their reliance on cues, prompts and reminders
- Compare their reliance on external cues with information from the medical file and collateral information
- Ensure comparison to performance before the accident



#### **ANALYSE THE CLIENT'S PERFORMANCE:**

- Check their performance on the situational tasks against the levels of disability, outlined in the Wilson 1998 article
- Relate the client's performance back to physical, cognitive and emotional/behavioural effects associates with brain injury



## Your report should include:

- Interview with the client
- Detailed descriptions of situations completed during the assessment
- Detailed collateral interview with the client's caregivers (family member/ friend/PSW)
  - Gather information on the levels of cueing, prompting, reminding being provided by the caregiver
  - Determine the number of hours of assistance required inside the home for Q2 A & B
- Follow up with the client after each testing day









## THANK YOU!!

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