GLASGOW OUTCOME SCALE – EXTENDED

GOS-E: Definition and Administration.
Working within the New Regulations.

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Presentation Outline

• GOS versus GOS-E
• Administration & Scoring of the GOS-E Structured Interview
• Comparison with the Assessment of Attendant Care/Form 1
  • Components of the Form 1 – often misunderstood
• Challenges
Glasgow Outcome Scale

1. Dead
2. Vegetative State
3. Severe Disability (CAT)
4. Moderate Disability (NON CAT)
5. Good Recovery

2. VEGETATIVE STATE
Unable to interact with environment; unresponsive

• No evidence of meaningful responsiveness
• Breathe spontaneously
• Have periods of spontaneous eye-opening
• May follow moving objects with their eyes
• Have reflex responses in limbs
• May swallow food placed in their mouth
3. SEVERE DISABILITY
Unable to live independently

Ranges from

• requiring assistance with one activity
to

• continuous total dependence

4. MODERATE DISABILITY
Able to live independently; mostly unable to return to work or school

• Independent but disabled
• Can look after him/herself
  • at home
  • in the community
• Can use public transportation
5. GOOD RECOVERY
Able to return to work or school

- There may be minor physical or mental deficits
- May or may not have resumed all previous activities

New Regulations: GOS replaced by GOS-E

- Comes into effect June 1, 2016, 18 years of age or older at the time of the accident, considered to have sustained a catastrophic impairment if he/she sustains a traumatic brain injury as a result of the accident that:
  - Is objectively proven by medically recognized brain diagnostic technology;
  - When assessed in accordance with Wilson, J., Pettigrew, L. and Teasdale, G., *Structured Interviews for the Glasgow Outcome Scale and the Extended Glasgow Outcome Scale*: the injury results in a rating of:
    - Vegetative State one month or more after the accident;
    - Upper Severe Disability or Lower Severe Disability six months or more after the accident; or
    - Lower Moderate Disability one year or more after the accident.
# Glasgow Outcome Scale Extended

The Glasgow Outcome Scale (GOS) is a global scale for functional outcome that rates a patient status into one of five categories: Dead, Vegetative State, Severe Disability, Moderate Disability or Good Recovery. The Extended GOS (GOSE) provides more detailed categorization into eight categories by subdividing the categories into lower and upper categories.

<table>
<thead>
<tr>
<th>Category</th>
<th>GOSE Descriptor</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Dead</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2 Vegetative State</td>
<td>VS</td>
<td>• Unable to obey commands or say words</td>
</tr>
<tr>
<td>3 Severe Disability - Lower</td>
<td>SO -</td>
<td>• Needs frequent help or someone to be around most of the time</td>
</tr>
</tbody>
</table>
| 4 Severe Disability - Upper | SD + | • Does not need frequent help able to be alone at home for up to 8 hrs.  
• Not able to travel locally without assistance |
| 5 Moderate Disability - Lower | MD - | • Not able to work, or, only in a sheltered or non-competitive position  
• Unable to participate (or, rarely if ever) in regular social and leisure activities outside home  
• Constant and intolerable (daily) disruption of family relationships or friendships due to psychological problems |
| 6 Moderate Disability - Upper | MD + | • Able to work or study but at a reduced capacity  
• Participates much less (less than half as often) in regular social and leisure activities outside home  
• Frequent but tolerable (once per week) disruption of family relationships or friendships due to psychological problems |
| 7 Good Recovery - Lower | GR - | • Participates at least half as often as before in regular social and leisure activities outside home  
• Occasional disruption of family relationships or friendships due to psychological problems  
• Other problems relating to the injury (headache, dizziness, tiredness, sensory sensitivity, slowness, memory failures, concentration problems) affect daily life |
| 8 Good Recovery - Upper | GR + | • Able to work to previous capacity  
• Able to resume regular social and leisure activities outside home  
• No psychological problems resulting in ongoing family disruption or disruption to friendships |

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**GOS-E Structured Interview for the Glasgow Outcome Scale and the Extended Glasgow Outcome Scale: Guidelines for Their Use**


1. Consciousness
2. Independence in the Home
   3. Independence Outside the Home
3. Shop
4. Travel
5. Work
6. Social and Leisure
7. Family and Friendships
8. Return to Normal Life
Structured Interview for the Glasgow Outcome Scale and the Extended Glasgow Outcome Scale

• NOT based on initial status / injury
• Based on:
  • Current status/functioning over the past week
  • Capability NOT whether they have done activity
  • BEST sources of information – Lack of insight? Collateral information? Is collateral information reliable (Denial? Anxiety? Other issues?)
  • Completion of ENTIRE questionnaire
  • Intended to be used post-hospital discharge

1. Consciousness

1. Is the head injured person able to obey simple commands?
   • NO = VS
   • YES = 2
   • Anyone who shows ability to obey even simple commands or utter any word or communicate specifically in any other way is no longer considered to be in a vegetative state. Eye movements are not reliable evidence of meaningful responsiveness.
   • Corroborate with nursing staff.
   • Confirmation of VS requires full assessment as in the Royal College of Physician Guideline.
2. Independence in the Home

a) Is the assistance of another person at home essential every day for some activities of daily living?
   - NO, go to question 3. Must be able to take care of self for 24 hrs if necessary.

b) Do they need frequent help or someone to be around at home most of the day?
   - NO, must be able to look after themselves for up to 8 hrs/day if necessary
     - = Upper SD
   - If YES
     - = Lower SD

   BOTH OF THE ABOVE = CAT AT 6 MONTHS

3 and 4. Independence Outside the Home

3. Able to SHOP without assistance?
   - Ability to plan purchase, money management, behave appropriate in public?
     - NO = Upper SD

4. Able to TRAVEL locally without assistance – public transit, taxi...UBER?
   - NO = Upper SD

   BOTH OF THE ABOVE = CAT AT 6 MONTHS
5. WORK

Able to WORK to previous capacity

• a) Reduced work capacity
   = Upper MD

• B) Sheltered workshop or non competitive job or unable
   = Lower MD = CAT AT 1 YEAR

6. SOCIAL AND LEISURE ACTIVITIES

• Able to resume regular social and leisure activities outside the home

• Extent of restriction?
  • Participate at least ½ as often = Lower GR
  • Participate less than ½ as often = Upper MD
  • Unable to participate – rarely if ever = Lower MD = CAT at 1 yr.
7. FAMILY and FRIENDSHIPS

• Amount of disruption
  • Occasional less than weekly = Lower GR
  • Frequent – once per week or more, but tolerable – Upper MD
  • Constant – daily and intolerable = Lower MD

8. RETURN TO NORMAL LIFE

• Are there any other current problems which affect daily life
  • Headache, dizziness, tiredness, sensitivity to noise or light, slowness, memory failures, concentration problems
    • NO = Upper GR
    • YES = Lower GR
Scoring

• Based on the **LOWEST outcome category** indicated on the scale
• Vegetative State **VS – AT ONE MONTH POST ACCIDENT = CAT**
• Lower Severe Disability **Lower SD AT SIX MONTHS POST ACCIDENT = CAT**
• Upper Severe Disability **Upper SD AT SIX MONTHS POST ACCIDENT = CAT**
• Lower Moderate Disability **Lower MD AT ONE YEAR POST ACCIDENT = CAT**
• Upper Moderate Severe Disability **Upper SD**
• Lower Good Recovery **Lower GR**
• Upper Good Recovery **Upper GR**

Assessment of Attendant Care Needs (Form 1)

Key Points:

• Form 1 completion falls under **various legislation** according to **Date of Injury** – the Forms DIFFER in content (and hourly rate paid)
• The Form 1 has: 3 Levels of Care
• The content on the Form 1 is not always understood
• The Form 1 must be completed only by an OT or RN (subsequent to Sept. 2010)
Attendant Care Benefit

• The insurer shall pay an insured person who sustains an impairment as a result of a motor vehicle accident an attendant care benefit unless their impairment is determined to be within the Minor Injury Guideline.

• The attendant care benefit will pay for all “reasonable and necessary expenses incurred by or on behalf of the insured person” for services provided by an aide or attendant or services provided by a long-term care facility, including a nursing home, home for the aged or chronic care hospital.

Levels of Care on the Form 1

• **Level 1** – Routine personal care

• **Level 2** – Basic supervisory functions

• **Level 3** – Complex health/care and hygiene functions
Level 1 - Routine Personal Care

• Dressing, undressing
• Prosthetics, orthotics, grooming
• Feeding, mobility and extra laundry

SIMILAR TO GOS-E QUESTION 2. INDEPENDENCE IN THE HOME

Form 1 – Routine Personal Care, cont’d

• Part 1 – do they need **cuing** to do routine personal care

• E.g. clean clothing, grooming, feeding (includes meal preparation), mobility (supervises walking)
Form 1 - Level 2 - Basic Supervisory Functions

- **Hygiene**
  - Only related to evaluee, not family members
  - Includes bathroom, bedroom and clothing care
  - **Ensuring Comfort and Security in this environment**

- **Basic Supervisory Care**
  - "The ability to be physically, cognitively, behaviourally and/or emotionally self-sufficient in an emergency situation"

- **Co-ordination of Attendant Care**
  - Ability to deal with unexpected cancellations, organize the attendants’ schedules.
  - Ability to use a communication device

Form 1 - Part 2 - Basic Supervisory Functions, cont’d

- Ensures comfort and security
- Basic supervisory care
  - “Applicant lacks the ability to respond to an emergency or needs custodial care due to changes in behaviour”
    - E.g. – unaware of safety, poor judgment, very heavy sleeper, responding to fire alarms.
    - AMOUNT of care needed – is it 24 hours, more than 8 hours per day?
- Co-ordination of attendant care

SIMILAR TO GOS-E QUESTION 2. **INDEPENDENCE IN THE HOME**
Form 1 - Level 3- Complex health/care and hygiene functions

- Genitourinary tracts, Bowel care, Tracheostomy care, Ventilator care
- Exercises
- Skin Care
- Medication
- Bathing
- Other therapy
- Maintenance of Supplies and Equipment
- Skilled Supervisory Care

Form 1 – Part 3 – Complex health/care and hygiene functions – cont’d

- Medications
- Assistance with exercise programs
- Skilled Supervisory Care
  - “Applicant requires skilled supervisory care for violent behaviour that may result in physical harm to themselves or others.”
Watters and State Farm Decision
FSCO A13-006328, June 26, 2015

• Decision regarding GOS

• GOS is not just about neurological deficits - It is more about functional impairments in the real world (including those based on personality/behavioural changes and cognitive impairments)

• Any medical professional who is trained can give an opinion on GOS score

• Collateral interviews are critical

• Independence is the key factor in distinguishing between “severe” and “moderate” disability

Lessons Learned

• We need to have functional evidence to provide impairment ratings

• Review of the Form 1 – Gives time allotments on specific activities (this relates to Independence in the Home – 24 hr/8 hr etc.)

• Collateral information – helpful but not only source

• Community assessment - helpful
Challenges

• Assessments in rural areas – Travel issues, shopping issues, proximity of amenities, do they want to be seen/confidentiality
• Evaluatees “flown in” for assessments i.e. not in home environment (“real world”)
• Financial restraints/time constraints
• May be limited number of assessments or length of assessment(s)
• Lack of collateral information OR unreliable collateral information
• Poorly completed Form 1’s – time allotments, no rationale for assistance

Summary

• GOS-E replaces the GOS
• GOS-E administered at 1 month, 6 months, 1 year post accident
• The Structured Interview determines if CAT or Non-CAT.
• Similarities between GOS-E and Attendant Care Needs (Form 1)
• Specific activities on the Form 1 – misunderstood by some medical practitioners, specifically “basic supervision”
• Functional evidence is required to accurately complete the GOS-E
• Increased need for home and community assessments
• Opinion of non-physicians is valid (Watters decision)
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