Stroke Network
Southwestern Ontario
Serving Erie St. Clair and South West LHINs

ACUTE STROKE UNIT ORIENTATION

2018

MODULE 5: CANADIAN NEUROLOGICAL SCALE (CNS)

Learning Objectives

Upon completion of this module, nurses will be able to:

- Explain why the CNS is a useful tool
- Understand how to perform CNS
- Understand the scoring methods for this assessment
- Describe how and where to document the scores in the chart
- Describe when to communicate results of CNS
- Understand how to use the CNS Quick Reference Sheet

The PowerPoint content for this module, Canadian Neurological Scale: Training for Trainers Workshop, is made available by the Heart and Stroke Foundation. A direct link be accessed here. Please note, a copy may be printed for personal use only.

Canadian Neurological Scale – Quick Reference Sheet

MENTATION

Alert or Drowsy ➡ CNS	Stuporous or Comatose ➡ Glasgow Coma Scale	Score
LEVEL OF CONSCIOUSNESS		
Alert: If Spontaneous Eye Opening, Normal level of consciousness → → → → →		**Alert: 3.0**
Drowsy: When stimulated verbally remains awake and alert for short periods but tends to dose off → → → →		**Drowsy: 1.5**
ORIENTATION		
Oriented: Ask patient: 1. Where are you? (City and Hospital) 2. What is the month and year? (If early in the month, first 3 days of previous month are acceptable). Speech can be slurred BUT must be intelligible →		**Oriented: 1.0**
Disoriented: If patient cannot state both place and time, or cannot express answers in words or intelligible speech. → → →		**Disoriented or N/A: 0.0**
SPEECH		
Receptive Speech Testing: (i.e. understand simple commands)		
Ask the patient to: 1. Close your eyes 2. Point to the ceiling 3. Does a stone sink in water? ***DO NOT MIMIC THESE COMMANDS***		**Receptive 0.0** **Expressive 0.5** **Normal 1.0**

If patient cannot complete all three commands:	Patient completes all 3 requests continue to assess for Expressive Speech Deficit
Score a **Receptive Deficit** of 0.0 and **proceed to Section A2**: Motor Response- Receptive Deficit Present	**Show patient 3 objects: key, watch, pen.** **Ask patient:** 1. Name all 3 objects 2. The use of each object. Must name all 3 objects & state use of each to receive a Normal score of 1.0. If patient makes one or more errors and/or mispronounces words or non-intelligible words (severe dysarthria) record as **Expressive Deficit** 0.5 and **proceed to A1.** If patient's speech is slurred but understandable score Normal Speech but indicate "SL".

MOTOR RESPONSE

A2 : Motor Response Receptive Deficit Present	Score	A1: Motor Response Normal Speech or Expressive Deficit Present	Score
Face: Have patient mimic a grin, show teeth or gums, and note symmetry of nasal labial folds. If the patient is unable to grin/smile with mimics, apply pressure to sternum, and note symmetry. **Record side with WORST deficit with an "R" or "L"**	**Symmetrical 0.5** **Asymmetrical 0.0** R/L	**Face:** Ask the patient to smile/grin, note symmetry of mouth and nasal labial folds. If Symmetrical Score 0.5 → If asymmetry present Score 0.0 →	**None: 0.5** **Present: 0.0 R/L**
Arms: Place patient's outstretched arms in front at 90° – must hold for 5 sec. If pt unable to perform compare response when pressure is applied to nailbeds bilaterally. **Note equal/unequal motor response, record side with WORST deficit with an "R" or "L".**	**Equal 1.5** **Unequal 0.0** R/L	**Always record side with WORST deficit and indicate side with an "R" or "L"** Proceed with the following Grading System: None: 1.5 (No detectable weakness, limb outstretched 90° X 5seconds AND withstands resistance) Mild: 1.0 (Limb outstretched 90° X 5 seconds BUT succumbs to resistance) Significant: 0.5 (Limb outstretched cannot maintain 90° X 5 seconds against gravity – resistance is not done) Total: 0.0 (Absence of movement OR muscle contraction without movement)	
Legs: Bring thighs toward trunk 90° with knees flexed - must hold for 5 sec. If pt unable to perform compare response when pressure is applied to nailbeds bilaterally. **Note equal/unequal motor response, record side with WORST deficit with an "R" or "L".**	**Equal 1.5** **Unequal 0.0** R/L	***Arms (Proximal)* tested in Sitting or Lying** **Sitting:** Elevate pt's arms to shoulder level & apply resistance below shoulders (ask pt to resist you or don't let me push your arm down) **Lying:** Elevate arms to 45° to 90° X 5 sec & apply resistance below shoulders.	**None: 1.5** **Mild: 1.0** **Significant: 0.5** **Total: 0.0**
		***Arms (Distal)* tested Sitting or Lying** **Sitting/Lying**: Outstretch arms, wrists cocked back (dorsiflexed hands), support arms while applying pressure between wrists and knuckles.	**None: 1.5** **Mild: 1.0** **Significant: 0.5** **Total: 0.0**
		***Legs (Proximal)* tested Lying** **Lying**: Thighs brought toward body 90° keeping knees flexed X 5 sec; push down on each thigh one at a time.	**None: 1.5** **Mild: 1.0** **Significant: 0.5** **Total: 0.0**
		***Legs (Distal)* tested Sitting or Lying** **Sitting/Lying**: Toes and feet point upward toward head; push down on each foot, one at a time.	**None: 1.5** **Mild: 1.0** **Significant: 0.5** **Total: 0.0**

Quick Notes:

1. DO NOT complete all sections of the tool
   Normal /Expressive deficit = ***mentation + A1 sections***
   OR Receptive deficit = ***mentation + A2 sections***
2. ROM ability against gravity will differentiate grading level of weakness.
3. Outstretched limb is 90° X 5 seconds for normal.

Adapted from London Health Sciences Centre

References

CNS Introduction Presentation. (2004). Retrieved from the Heart and Stroke Foundation of Ontario website; http://www.heartandstroke.on.ca/site/c.pvI3IeNWJwE/b.5385163/k.5CDC/HCP__Canadian_Neurological_Scale_CNS.htm.