

## The Scripps Neurological Rating Scale (NRS) in Patients with Multiple Sclerosis

Overview: The Scripps Neurological Rating Scale (NRS) was developed for the clinical assessment of patients with multiple sclerosis. The authors are from the Scripps Clinic in La Jolla California.

Parameters (22):

(1) mentation and mood

(2) eyes and related cranial nerves

(a) visual acuity

(b) visual fields ocular discs pupils

(c) eye movements

(d) nystagmus

(3) lower cranial nerves

(4) motor function in each extremity

(a) right upper

(b) left upper

(c) right lower

(d) left lower

(5) deep tendon reflexes (DTRs)

(a) upper extremities

(b) lower extremities

(6) Babinski sign

(a) left side

(b) right side

(7) sensory function in each extremity

(a) right upper

(b) left upper

(c) right lower

(d) left lower

(8) cerebellar signs

(a) upper extremities

(b) lower extremities

(9) gait trunk and balance

(10) special category for autonomic dysfunction (bladder bowel and/or sexual dysfunction)

<b>Parameter</b>	<b>Finding</b>	<b>Points</b>
mentation and mood	normal	10
	mild impairment	7
	moderate impairment	4
	severe impairment	0
visual acuity	normal	5
	mild impairment	3
	moderate impairment	1
	severe impairment	0
fields discs pupils	normal	6
	mild impairment	4
	moderate impairment	2
	severe impairment	0
eye movements	normal	5
	mild impairment	3
	moderate impairment	1
	severe impairment	0
nystagmus	normal	5
	mild impairment	3
	moderate impairment	1
	severe impairment	0
lower cranial nerves	normal	5
	mild impairment	3
	moderate impairment	1

	severe impairment	0
motor right upper extremity	normal	5
	mild impairment	3
	moderate impairment	1
	severe impairment	0
motor left upper extremity	normal	5
	mild impairment	3
	moderate impairment	1
	severe impairment	0
motor right lower extremity	normal	5
	mild impairment	3
	moderate impairment	1
	severe impairment	0
motor left lower extremity	normal	5
	mild impairment	3
	moderate impairment	1
	severe impairment	0
DTR upper extremities	normal	4
	mild impairment	3
	moderate impairment	1
	severe impairment	0
DTR lower extremities	normal	4
	mild impairment	3
	moderate impairment	1
	severe impairment	0
Babinski sign left side	absent	2
	present	0
Babinski sign right side	absent	2

	present	0
sensory right upper extremity	normal	3
	mild impairment	2
	moderate impairment	1
	severe impairment	0
sensory left upper extremity	normal	3
	mild impairment	2
	moderate impairment	1
	severe impairment	0
sensory right lower extremity	normal	3
	mild impairment	2
	moderate impairment	1
	severe impairment	0
sensory left lower extremity	normal	3
	mild impairment	2
	moderate impairment	1
	severe impairment	0
cerebellar signs upper extremities	normal	5
	mild impairment	3
	moderate impairment	1
	severe impairment	0
cerebellar signs lower extremities	normal	5
	mild impairment	3
	moderate impairment	1
	severe impairment	0
gait trunk and balance	normal	10
	mild impairment	7
	moderate impairment	4

	severe impairment	0
bladder bowel sexual dysfunction	normal	0
	mild impairment	-3
	moderate impairment	-7
	severe impairment	-10

where:

- The scoring for the special category is a little unclear. The options are (a) to grade based on the most severely affected (b) overall impairment. I used the former approach in the implementation.

total NRS =

= SUM(points for all of the parameters)

Impression:

- minimum score: -10
- maximum score: 100
- The higher the score the better the patient's level of function.

Performance:

- The score was more sensitive to change than the DSS.
- The test shows a good inter-observer correlation.

References:

Sipe JC Knobler RL et al. A neurologic rating scale (NRS) for use in multiple sclerosis. *Neurology*. 1984; 34: 1368-1372.